

SEQUENCE LISTING

<110> Brandt, Kevin S.
Gaines, Patrick J.
Stinchcomb, Dan T.
Wisnewski, Nancy

<120> FLEA HEAD, NERVE CORD, HINDGUT AND MALPIGHIAN TUBULE
NUCLEIC ACID MOLECULES, PROTEINS AND USES THEREOF

<130> FC-6-C1

<140> not yet assigned

<141> 2000-04-07

<150> 60/128,704

<151> 1999-04-09

<160> 1959

<170> PatentIn Ver. 2.1

<210> 1

<211> 2057

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (152)..(1303)

<400> 1

aacataataa taacttaata aaattttgtg atcagatttc taatatccag aacaaagcca 60

gtaattataa gaaccaagcc tatttcatgt gaaggttact tctccacagt attattatct 120

atctcaagaa gtaatctatt actgaatcaa a atg aaa agc agt acc tgt att 172

Met Lys Ser Ser Thr Cys Ile

1

5

ttt ctt ctg gtc att atg ctg aat tgc aag aac ctt gtt aat gct gcg 220

Phe Leu Leu Val Ile Met Leu Asn Cys Lys Asn Leu Val Asn Ala Ala

10

15

20

tgc acc aac aac gcg cct cca atg aag ata ttc cgt agc cga aga gtt 268

Cys Thr Asn Asn Ala Pro Pro Met Lys Ile Phe Arg Ser Arg Arg Val

25

30

35

ctt ctc ggt gat ggt act gaa aga gat gct ggc att gta gtt gat tcc	316
Leu Leu Gly Asp Gly Thr Glu Arg Asp Ala Gly Ile Val Val Asp Ser	
40 45 50 55	
tcc gga aga ata aaa agt ata att tca gga gaa gaa gtg gaa agg ata	364
Ser Gly Arg Ile Lys Ser Ile Ile Ser Gly Glu Glu Val Glu Arg Ile	
60 65 70	
gct aac gaa act aaa gtt gag gtg ttg gac tac ggt caa ttt tca ata	412
Ala Asn Glu Thr Lys Val Glu Val Leu Asp Tyr Gly Gln Phe Ser Ile	
75 80 85	
tgg cca ggt gtg ata gac tct cat gtg cac gtc aac gaa cca gga aga	460
Trp Pro Gly Val Ile Asp Ser His Val His Val Asn Glu Pro Gly Arg	
90 95 100	
gaa tcc tgg gaa gga tac acc aca gct act aaa gca gca gct tgg ggc	508
Glu Ser Trp Glu Gly Tyr Thr Thr Ala Thr Lys Ala Ala Ala Trp Gly	
105 110 115	
ggg att acc aca ata gta gac atg cct ttg aat tcc atc cca cct aca	556
Gly Ile Thr Thr Ile Val Asp Met Pro Leu Asn Ser Ile Pro Pro Thr	
120 125 130 135	
act act gta gag aat ttg aga aca aaa gtg aat tca gcc tgt ggt aaa	604
Thr Thr Val Glu Asn Leu Arg Thr Lys Val Asn Ser Ala Cys Gly Lys	
140 145 150	
acg cat gtt gat gtc gct ttc tgg gga ggc gtg att cct ggc aat gcg	652
Thr His Val Asp Val Ala Phe Trp Gly Gly Val Ile Pro Gly Asn Ala	
155 160 165	
cac gaa ttg ttg cca ctt atc aac gcc gga gta aga gga ttc aaa tgt	700
His Glu Leu Leu Pro Leu Ile Asn Ala Gly Val Arg Gly Phe Lys Cys	
170 175 180	
ttt aca agt gaa agt ggt gtc gat gag ttt cca cag gtt act aaa aat	748
Phe Thr Ser Glu Ser Gly Val Asp Glu Phe Pro Gln Val Thr Lys Asn	
185 190 195	
gat ctg gaa atg gct cta aaa gag ctc cag aaa gca aat tcc gta ctt	796
Asp Leu Glu Met Ala Leu Lys Glu Leu Gln Lys Ala Asn Ser Val Leu	
200 205 210 215	
ctg tac cat gcc gaa tta ccc gct cct caa gaa aat gtt aca agc aat	844
Leu Tyr His Ala Glu Leu Pro Ala Pro Gln Glu Asn Val Thr Ser Asn	
220 225 230	

gaa act gaa aag tac atg act tac ctg aaa aca cga cct cca agt atg 892
 Glu Thr Glu Lys Tyr Met Thr Tyr Leu Lys Thr Arg Pro Pro Ser Met
 235 240 245

gaa gta aat gct att gat atg att ata gac ctg aca aaa aaa tat aaa 940
 Glu Val Asn Ala Ile Asp Met Ile Ile Asp Leu Thr Lys Lys Tyr Lys
 250 255 260

gtt agg tct cac ata gtg cat cta tca gca gca ggt gct tta ccg caa 988
 Val Arg Ser His Ile Val His Leu Ser Ala Ala Gly Ala Leu Pro Gln
 265 270 275

ttg aaa aaa gcg cgc tca gag aac gtt cca ctt tcg att gaa act tgt 1036
 Leu Lys Lys Ala Arg Ser Glu Asn Val Pro Leu Ser Ile Glu Thr Cys
 280 285 290 295

cat cat tac tta acc ttt gct gct gaa gat gtt cca gat gga cat act 1084
 His His Tyr Leu Thr Phe Ala Ala Glu Asp Val Pro Asp Gly His Thr
 300 305 310

gaa tac aaa tgc gct cca cca att aga gaa gaa agt aat caa gaa aaa 1132
 Glu Tyr Lys Cys Ala Pro Pro Ile Arg Glu Glu Ser Asn Gln Glu Lys
 315 320 325

tta tgg caa gct ttg gaa aac aga gat att gat atg gta gtc agt gat 1180
 Leu Trp Gln Ala Leu Glu Asn Arg Asp Ile Asp Met Val Val Ser Asp
 330 335 340

cat tct cca tca cct gct gca ctg aaa ggc ctg tgc aat ggt tgt cat 1228
 His Ser Pro Ser Pro Ala Ala Leu Lys Gly Leu Cys Asn Gly Cys His
 345 350 355

cct gat ttc cta aaa gct tgg ggt gga att gct ggt atg cag ttt gga 1276
 Pro Asp Phe Leu Lys Ala Trp Gly Gly Ile Ala Gly Met Gln Phe Gly
 360 365 370 375

tta tct tta ata agg gac cgg tgc ttc taaaagaggc tttaaagctc 1323
 Leu Ser Leu Ile Arg Asp Arg Cys Phe
 380

atgatgtatc tcgtttatta tctgcgggac ctgcgaaatt aactggactg gatggcataa 1383

aaggacaaat caaagaaggc ttggatgctg atttagtaat ttgggatcct gaggaagaat 1443

ttaaggtcac taaagacata atccaacaca agaataaaga aacaccatac ttaggaatga 1503

cgttgaaggg caaagttcat gcaactgttg tacgaggaga ctttggtttac cgtaatggac 1563

aaccattcga aattccaaaa ggaaatttac ttattgaatg attaaatgta atagattaat 1623
caaatttttag atgattaaaa ttgttttatt actacaatag caacctctgc ctgaaaatta 1683
accgaacaaa cttctaacat ccttattaat gtatagattt tgaataataa catagaaatt 1743
atactatttt tttgatgact ctaataaaaa aaatgtataa atggccatgc ctgatataat 1803
tttgataacc ttaatgaaaa aatgttttaa tggccatgic tgaaaagatt tctatgtgta 1863
tttttttggt aacattttat tgttgaatgg ataaaagata aatacaattt tataagctgt 1923
ttggataaat taattttgaa taaatccata atcatagaat atgttaagta gcaaattaaa 1983
atatggacca caaaccacaa aatgtatacg aaatataact tatatgatat atgaaaaaaaa 2043
aaaaaaaaaa aaaa 2057

<210> 2
<211> 384
<212> PRT
<213> Ctenocephalides felis

<400> 2
Met Lys Ser Ser Thr Cys Ile Phe Leu Leu Val Ile Met Leu Asn Cys
1 5 10 15
Lys Asn Leu Val Asn Ala Ala Cys Thr Asn Asn Ala Pro Pro Met Lys
20 25 30
Ile Phe Arg Ser Arg Arg Val Leu Leu Gly Asp Gly Thr Glu Arg Asp
35 40 45
Ala Gly Ile Val Val Asp Ser Ser Gly Arg Ile Lys Ser Ile Ile Ser
50 55 60
Gly Glu Glu Val Glu Arg Ile Ala Asn Glu Thr Lys Val Glu Val Leu
65 70 75 80
Asp Tyr Gly Gln Phe Ser Ile Trp Pro Gly Val Ile Asp Ser His Val
85 90 95
His Val Asn Glu Pro Gly Arg Glu Ser Trp Glu Gly Tyr Thr Thr Ala
100 105 110
Thr Lys Ala Ala Ala Trp Gly Gly Ile Thr Thr Ile Val Asp Met Pro
115 120 125

Leu	Asn	Ser	Ile	Pro	Pro	Thr	Thr	Thr	Val	Glu	Asn	Leu	Arg	Thr	Lys	130	135	140	
Val	Asn	Ser	Ala	Cys	Gly	Lys	Thr	His	Val	Asp	Val	Ala	Phe	Trp	Gly	145	150	155	160
Gly	Val	Ile	Pro	Gly	Asn	Ala	His	Glu	Leu	Leu	Pro	Leu	Ile	Asn	Ala	165	170	175	
Gly	Val	Arg	Gly	Phe	Lys	Cys	Phe	Thr	Ser	Glu	Ser	Gly	Val	Asp	Glu	180	185	190	
Phe	Pro	Gln	Val	Thr	Lys	Asn	Asp	Leu	Glu	Met	Ala	Leu	Lys	Glu	Leu	195	200	205	
Gln	Lys	Ala	Asn	Ser	Val	Leu	Leu	Tyr	His	Ala	Glu	Leu	Pro	Ala	Pro	210	215	220	
Gln	Glu	Asn	Val	Thr	Ser	Asn	Glu	Thr	Glu	Lys	Tyr	Met	Thr	Tyr	Leu	225	230	235	240
Lys	Thr	Arg	Pro	Pro	Ser	Met	Glu	Val	Asn	Ala	Ile	Asp	Met	Ile	Ile	245	250	255	
Asp	Leu	Thr	Lys	Lys	Tyr	Lys	Val	Arg	Ser	His	Ile	Val	His	Leu	Ser	260	265	270	
Ala	Ala	Gly	Ala	Leu	Pro	Gln	Leu	Lys	Lys	Ala	Arg	Ser	Glu	Asn	Val	275	280	285	
Pro	Leu	Ser	Ile	Glu	Thr	Cys	His	His	Tyr	Leu	Thr	Phe	Ala	Ala	Glu	290	295	300	
Asp	Val	Pro	Asp	Gly	His	Thr	Glu	Tyr	Lys	Cys	Ala	Pro	Pro	Ile	Arg	305	310	315	320
Glu	Glu	Ser	Asn	Gln	Glu	Lys	Leu	Trp	Gln	Ala	Leu	Glu	Asn	Arg	Asp	325	330	335	
Ile	Asp	Met	Val	Val	Ser	Asp	His	Ser	Pro	Ser	Pro	Ala	Ala	Leu	Lys	340	345	350	
Gly	Leu	Cys	Asn	Gly	Cys	His	Pro	Asp	Phe	Leu	Lys	Ala	Trp	Gly	Gly	355	360	365	
Ile	Ala	Gly	Met	Gln	Phe	Gly	Leu	Ser	Leu	Ile	Arg	Asp	Arg	Cys	Phe	370	375	380	

<210> 3
 <211> 2057
 <212> DNA
 <213> Ctenocephalides felis

<400> 3
 tttttttttt tttttttttt tcatatatca tataagttat atttcgtata cattttgtgg 60
 tttgtggtcc atattttta atattttta ttgctactta acatattcta tgattatgga tttattcaaa 120
 attaatattat ccaaacagct tataaaattg tatttatctt ttatccattc aacaataaaa 180
 tgtaacaaa aaaatacaca tagaaatctt ttcagacatg gccatttaaa cattttttca 240
 ttaagggttat caaaaatata tcaggcatgg ccattttatac atttttttta ttagagtcat 300
 caaaaaaata gtataatttc tatgttatta ttcaaaatct atacattaat aaggatgtta 360
 gaagtttggt cgggttaattt tcaggcagag gttgctattg tagtaataaa acaattttta 420
 tcatctaaaa tttgattaat ctattacatt taatcattca ataagtaaatt ttccttttgg 480
 aatttcgaat ggttggtccat tacggtaaac aaagtctcct cgtacaacag ttgcatgaac 540
 tttgcccttc aacgctcatt ctaagtatgg tgtttcttta ttcttggtgt ggattatgtc 600
 tttagtgaac ttaaattctt cctcaggatc ccaaattact aaatcagcat ccaagccttc 660
 tttgatttgt ccttttatgc catccagtc agttaatttc gcagggtccg cagataataa 720
 acgagataca tcatgagctt taaagcctct tttagaagca ccggtccctt attaaagata 780
 atccaaactg cataccagca attccacccc aagcttttag gaaatcagga tgacaaccat 840
 tgcacaggcc tttcagtgca gcagggtgat gagaatgatc actgactacc atatcaatat 900
 ctctgttttc caaagcttgc cataattttt cttagattact ttcttctcta attggtggag 960
 cgcatttgta ttcagtatgt ccatctggaa catcttcagc agcaaagggt aagtaatgat 1020
 gacaagtttc aatcgaaagt ggaacgttct ctgagcgcgc ttttttcaat tgcggtaaag 1080
 cacctgctgc tgatagatgc actatgtgag acctaacttt atattttttt gtgaggtcta 1140
 taatcatatc aatagcattt acttcacatc ttggaggctg tgttttcagg taagtcatgt 1200
 acttttcagt ttcattgctt gtaacatttt cttagaggagc gggtaattcg gcatggtaca 1260
 gaagtacgga atttgctttc tggagctctt ttagagccat ttccagatca ttttttagta 1320
 cctgtggaac ctcatcgaca ccactttcac ttgtaaaaca tttgaatcct ctactcccg 1380
 cgttgataag tggcaacaat tcgtgcgcac tgccaggaat cagcctccc cagaaagcga 1440
 catcaacatg cgttttacca caggctgaat tcaactttgt tctcaaattc tctacagtag 1500
 ttgtaggtgg gatggaattc aaaggcatgt ctactattgt ggtaatcccg cccaagctg 1560
 ctgctttagt agctgtggtg tatccttccc aggattctct tcctgggtcg ttgacgtgca 1620
 catgagagtc tatcacacct ggccatattg aaaattgacc gtagtccaac acctcaactt 1680
 tagtttcgtt agctatcctt tccacttctt ctctgaaat tatacttttt attcttcggg 1740
 aggaatcaac tacaatgcca gcatctcttt cagtaccatc accgagaaga actcttcggc 1800
 tacggaatat cttcattgga ggcgcttgt tgggtgcacgc agcattaaca aggttcttgc 1860
 aattcagcat aatgaccaga agaaaaatac aggtactgtt tttcattttg attcagtaat 1920
 agattacttc ttgagataga taataatact gtggagaagt aaccttcaca tgaaataggc 1980
 ttggttctta taattactgg ctttggtctg gatattagaa atctgatcac aaaattttat 2040
 taagttatta ttatgtt 2057

<210> 4
 <211> 1152

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (1)..(1152)

<400> 4

```
atg aaa agc agt acc tgt att ttt ctt ctg gtc att atg ctg aat tgc 48
Met Lys Ser Ser Thr Cys Ile Phe Leu Leu Val Ile Met Leu Asn Cys
  1             5             10             15

aag aac ctt gtt aat gct gcg tgc acc aac aac gcg cct cca atg aag 96
Lys Asn Leu Val Asn Ala Ala Cys Thr Asn Asn Ala Pro Pro Met Lys
          20             25             30

ata ttc cgt agc cga aga gtt ctt ctc ggt gat ggt act gaa aga gat 144
Ile Phe Arg Ser Arg Arg Val Leu Leu Gly Asp Gly Thr Glu Arg Asp
      35             40             45

gct ggc att gta gtt gat tcc tcc gga aga ata aaa agt ata att tca 192
Ala Gly Ile Val Val Asp Ser Ser Gly Arg Ile Lys Ser Ile Ile Ser
      50             55             60

gga gaa gaa gtg gaa agg ata gct aac gaa act aaa gtt gag gtg ttg 240
Gly Glu Glu Val Glu Arg Ile Ala Asn Glu Thr Lys Val Glu Val Leu
      65             70             75             80

gac tac ggt caa ttt tca ata tgg cca ggt gtg ata gac tct cat gtg 288
Asp Tyr Gly Gln Phe Ser Ile Trp Pro Gly Val Ile Asp Ser His Val
          85             90             95

cac gtc aac gaa cca gga aga gaa tcc tgg gaa gga tac acc aca gct 336
His Val Asn Glu Pro Gly Arg Glu Ser Trp Glu Gly Tyr Thr Thr Ala
          100             105             110

act aaa gca gca gct tgg ggc ggg att acc aca ata gta gac atg cct 384
Thr Lys Ala Ala Ala Trp Gly Gly Ile Thr Thr Ile Val Asp Met Pro
          115             120             125

ttg aat tcc atc cca cct aca act act gta gag aat ttg aga aca aaa 432
Leu Asn Ser Ile Pro Pro Thr Thr Thr Val Glu Asn Leu Arg Thr Lys
          130             135             140

gtg aat tca gcc tgt ggt aaa acg cat gtt gat gtc gct ttc tgg gga 480
Val Asn Ser Ala Cys Gly Lys Thr His Val Asp Val Ala Phe Trp Gly
          145             150             155             160
```

ggc gtg att cct ggc aat gcg cac gaa ttg ttg cca ctt atc aac gcc	528
Gly Val Ile Pro Gly Asn Ala His Glu Leu Leu Pro Leu Ile Asn Ala	
165 170 175	
gga gta aga gga ttc aaa tgt ttt aca agt gaa agt ggt gtc gat gag	576
Gly Val Arg Gly Phe Lys Cys Phe Thr Ser Glu Ser Gly Val Asp Glu	
180 185 190	
ttt cca cag gtt act aaa aat gat ctg gaa atg gct cta aaa gag ctc	624
Phe Pro Gln Val Thr Lys Asn Asp Leu Glu Met Ala Leu Lys Glu Leu	
195 200 205	
cag aaa gca aat tcc gta ctt ctg tac cat gcc gaa tta ccc gct cct	672
Gln Lys Ala Asn Ser Val Leu Leu Tyr His Ala Glu Leu Pro Ala Pro	
210 215 220	
caa gaa aat gtt aca agc aat gaa act gaa aag tac atg act tac ctg	720
Gln Glu Asn Val Thr Ser Asn Glu Thr Glu Lys Tyr Met Thr Tyr Leu	
225 230 235 240	
aaa aca cga cct cca agt atg gaa gta aat gct att gat atg att ata	768
Lys Thr Arg Pro Pro Ser Met Glu Val Asn Ala Ile Asp Met Ile Ile	
245 250 255	
gac ctc aca aaa aaa tat aaa gtt agg tct cac ata gtg cat cta tca	816
Asp Leu Thr Lys Lys Tyr Lys Val Arg Ser His Ile Val His Leu Ser	
260 265 270	
gca gca ggt gct tta ccg caa ttg aaa aaa gcg cgc tca gag aac gtt	864
Ala Ala Gly Ala Leu Pro Gln Leu Lys Lys Ala Arg Ser Glu Asn Val	
275 280 285	
cca ctt tcg att gaa act tgt cat cat tac tta acc ttt gct gct gaa	912
Pro Leu Ser Ile Glu Thr Cys His His Tyr Leu Thr Phe Ala Ala Glu	
290 295 300	
gat gtt cca gat gga cat act gaa tac aaa tgc gct cca cca att aga	960
Asp Val Pro Asp Gly His Thr Glu Tyr Lys Cys Ala Pro Pro Ile Arg	
305 310 315 320	
gaa gaa agt aat caa gaa aaa tta tgg caa gct ttg gaa aac aga gat	1008
Glu Glu Ser Asn Gln Glu Lys Leu Trp Gln Ala Leu Glu Asn Arg Asp	
325 330 335	
att gat atg gta gtc agt gat cat tct cca tca cct gct gca ctg aaa	1056
Ile Asp Met Val Val Ser Asp His Ser Pro Ser Pro Ala Ala Leu Lys	
340 345 350	

ggc ctg tgc aat ggt tgt cat cct gat ttc cta aaa gct tgg ggt gga 1104
 Gly Leu Cys Asn Gly Cys His Pro Asp Phe Leu Lys Ala Trp Gly Gly
 355 360 365

att gct ggt atg cag ttt gga tta tct tta ata agg gac cgg tgc ttc 1152
 Ile Ala Gly Met Gln Phe Gly Leu Ser Leu Ile Arg Asp Arg Cys Phe
 370 375 380

<210> 5

<211> 384

<212> PRT

<213> Ctenocephalides felis

<400> 5

Met Lys Ser Ser Thr Cys Ile Phe Leu Leu Val Ile Met Leu Asn Cys
 1 5 10 15

Lys Asn Leu Val Asn Ala Ala Cys Thr Asn Asn Ala Pro Pro Met Lys
 20 25 30

Ile Phe Arg Ser Arg Arg Val Leu Leu Gly Asp Gly Thr Glu Arg Asp
 35 40 45

Ala Gly Ile Val Val Asp Ser Ser Gly Arg Ile Lys Ser Ile Ile Ser
 50 55 60

Gly Glu Glu Val Glu Arg Ile Ala Asn Glu Thr Lys Val Glu Val Leu
 65 70 75 80

Asp Tyr Gly Gln Phe Ser Ile Trp Pro Gly Val Ile Asp Ser His Val
 85 90 95

His Val Asn Glu Pro Gly Arg Glu Ser Trp Glu Gly Tyr Thr Thr Ala
 100 105 110

Thr Lys Ala Ala Ala Trp Gly Gly Ile Thr Thr Ile Val Asp Met Pro
 115 120 125

Leu Asn Ser Ile Pro Pro Thr Thr Thr Val Glu Asn Leu Arg Thr Lys
 130 135 140

Val Asn Ser Ala Cys Gly Lys Thr His Val Asp Val Ala Phe Trp Gly
 145 150 155 160

Gly Val Ile Pro Gly Asn Ala His Glu Leu Leu Pro Leu Ile Asn Ala
 165 170 175

Gly Val Arg Gly Phe Lys Cys Phe Thr Ser Glu Ser Gly Val Asp Glu
 180 185 190

Phe Pro Gln Val Thr Lys Asn Asp Leu Glu Met Ala Leu Lys Glu Leu
 195 200 205

Gln Lys Ala Asn Ser Val Leu Leu Tyr His Ala Glu Leu Pro Ala Pro
 210 215 220

Gln Glu Asn Val Thr Ser Asn Glu Thr Glu Lys Tyr Met Thr Tyr Leu
 225 230 235 240

Lys Thr Arg Pro Pro Ser Met Glu Val Asn Ala Ile Asp Met Ile Ile
 245 250 255

Asp Leu Thr Lys Lys Tyr Lys Val Arg Ser His Ile Val His Leu Ser
 260 265 270

Ala Ala Gly Ala Leu Pro Gln Leu Lys Lys Ala Arg Ser Glu Asn Val
 275 280 285

Pro Leu Ser Ile Glu Thr Cys His His Tyr Leu Thr Phe Ala Ala Glu
 290 295 300

Asp Val Pro Asp Gly His Thr Glu Tyr Lys Cys Ala Pro Pro Ile Arg
 305 310 315 320

Glu Glu Ser Asn Gln Glu Lys Leu Trp Gln Ala Leu Glu Asn Arg Asp
 325 330 335

Ile Asp Met Val Val Ser Asp His Ser Pro Ser Pro Ala Ala Leu Lys
 340 345 350

Gly Leu Cys Asn Gly Cys His Pro Asp Phe Leu Lys Ala Trp Gly Gly
 355 360 365

Ile Ala Gly Met Gln Phe Gly Leu Ser Leu Ile Arg Asp Arg Cys Phe
 370 375 380

<210> 6

<211> 1152

<212> DNA

<213> Ctenocephalides felis

<400> 6

gaagcaccgg tcccttatta aagataatcc aaactgcata ccagcaattc caccccaagc 60

Arg Cys Ile Pro Thr Pro Pro Gly Glu Glu Cys Lys Ser Glu Ile Ala
 260 265 270

aag taaggcttaa accaggaaaa caatcttgaa tagactaatt aggattcaaa 871
 Lys

ttatcataaa gtagtcaatt aatataataa atacacaaat gatctgtgca attaaatata 931
 aaaaatatgt ttaaaaatta aaatgtataa aattgtatatt tatgtaagga gcacaaacaa 991
 aatgtcctta actatagtaa tttctgatta tttaaaatat ataaatatag aagctttatg 1051
 aaattacatg tatcttttta ataaaaataa atcgtttggg ccgttnnaaa aaaaaaaaaa 1111
 aaaaaaaaaa aaaaaaa 1128

<210> 8
 <211> 272
 <212> PRT
 <213> Ctenocephalides felis

<400> 8
 Met Lys Phe Leu Gly Ala Leu Leu Val Ala Val Phe Ala Leu Gly Ala
 1 5 10 15
 Val Ala Ala Asp Arg Asn Ser Pro Thr Tyr Val Arg Gly Phe Pro Val
 20 25 30
 Gly Arg Ser Arg Ala Arg Thr Thr Phe Gly Asn Glu Glu Ile Lys Cys
 35 40 45
 Thr Asn Lys Gln Leu Gly Thr Phe Cys His Asp Cys Ser Thr Leu Lys
 50 55 60
 Leu Cys Ala Gly Gln Glu Thr Pro Ile Thr Thr Ile Asn Cys Arg Asp
 65 70 75 80
 Ser Asn Ser Asp Ala Pro Phe Cys Val Asp Asp Met Cys Ser Ser Lys
 85 90 95
 Pro Gly Glu Asn Cys Lys Thr Ala Glu Thr Thr Cys Ala Val Val Gly
 100 105 110
 Tyr Gln Pro Asp Pro Lys Asp Cys Thr Arg Tyr Leu Phe Cys Lys Asp
 115 120 125
 Gly Lys Gly Gln Val Phe Glu Cys Pro Pro Asn Tyr Val Tyr Asp His

140

Cys Ile Pro Thr Pro Pro Gly Glu Glu Cys Lys Ser Glu Ile Ala Lys
260 265 270

<213> Ctenocephalides felis

tttttttntt	tttttttttt	tttttttttt	nnaacggccc	aaacgattta	tttttattaa	60
aaagatacat	gtaatttcac	aaagcttcta	tatttatata	ttttaaataa	tcagaaatta	120
ctatagttaa	ggacattttg	tttgtgctcc	ttacataaaa	tacaatttta	tacattttta	180
tttttaaaca	tattttttat	atttaattgc	acagatcatt	tgtgtattta	ttatattaat	240
tgactacttt	atgataattt	gaatccta	tagtctattc	aagattgttt	tcctggttta	300
agccttactt	agcaatctca	cttttgca	cttcgccggg	tggcgtgggt	atgcacgca	360
actccgtttt	atcaaagtgc	aagccatttg	gacaatcata	atgttttatt	tgccatttgt	420
tgtaaacc	gaaacattga	taatat	tacaatctct	tcgatcgga	aaaacgtttt	480
cacttttgca	tgcagttctg	cacgagaa	at	tttgggtc	aaaccattcg	540
cttcacattt	cagtacgac	ggttgca	att	tgcattgca	ccaagcataa	600
ccggtgcata	ggttataaaa	gaattgggat	tt	gtgcattt	catgacggtg	660
ctgacgattt	ctttttacac	atatttttag	aat	gatcata	tacatagtta	720
cgaaaacctg	acctttacca	tctttgcaga	ata	agtatct	tgtgcagtct	780
gctgatatcc	tacaacggcg	catgtagttt	ct	gccgtctt	acagttttcc	840
					ccagggttttg	

atgagcacat atcatctaca caaaatggag catcggaatt tgagtctctg caattgattg 900
 ttgtaattgg gggtttcttgt ccagcgcaca acttcaaagt agaacaatcg tgacaaaatg 960
 ttcccaactg cttattagta cactttatctt cttcattgcc aaatgttggt cgtgctctgg 1020
 atcttccac tgggaaaccg cggacatatg tgggcgaatt cctgtcagca gccacagcac 1080
 ccaaggcaaa cactgcaacc aataaagctc ctaagaactt cattgtga 1128

<210> 10

<211> 816

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (1)..(816)

<400> 10

atg aag ttc tta gga gct tta ttg gtt gca gtg ttt gcc ttg ggt gct 48
 Met Lys Phe Leu Gly Ala Leu Leu Val Ala Val Phe Ala Leu Gly Ala
 1 5 10 15

gtg gct gct gac agg aat tcg ccc aca tat gtc cgc ggt ttc cca gtg 96
 Val Ala Ala Asp Arg Asn Ser Pro Thr Tyr Val Arg Gly Phe Pro Val
 20 25 30

gga aga tcc aga gca cga aca aca ttt ggc aat gaa gaa ata aag tgt 144
 Gly Arg Ser Arg Ala Arg Thr Thr Phe Gly Asn Glu Glu Ile Lys Cys
 35 40 45

act aat aag cag ttg gga aca ttt tgt cac gat tgt tct act ttg aag 192
 Thr Asn Lys Gln Leu Gly Thr Phe Cys His Asp Cys Ser Thr Leu Lys
 50 55 60

ttg tgc gct gga caa gaa acc cca att aca aca atc aat tgc aga gac 240
 Leu Cys Ala Gly Gln Glu Thr Pro Ile Thr Thr Ile Asn Cys Arg Asp
 65 70 75 80

tca aat tcc gat gct cca ttt tgt gta gat gat atg tgc tca tca aaa 288
 Ser Asn Ser Asp Ala Pro Phe Cys Val Asp Asp Met Cys Ser Ser Lys
 85 90 95

cct ggg gaa aac tgt aag acg gca gaa act aca tgc gcc gtt gta gga 336
 Pro Gly Glu Asn Cys Lys Thr Ala Glu Thr Thr Cys Ala Val Val Gly
 100 105 110

tat cag cca gat ccg aaa gac tgc aca aga tac tta ttc tgc aaa gat 384
 Tyr Gln Pro Asp Pro Lys Asp Cys Thr Arg Tyr Leu Phe Cys Lys Asp
 115 120 125

ggt aaa ggt cag gtt ttc gaa tgc cca cct aac tat gta tat gat cat 432
Gly Lys Gly Gln Val Phe Glu Cys Pro Pro Asn Tyr Val Tyr Asp His
130 135 140

tct aaa aat atg tgt aaa aag aaa tcg tca gaa gct gat tgc acc gtc 480
Ser Lys Asn Met Cys Lys Lys Lys Ser Ser Glu Ala Asp Cys Thr Val
145 150 155 160

atg aaa tgc aca aat ccc aat tct ttt ata acc tat gca ccg gac cca 528
Met Lys Cys Thr Asn Pro Asn Ser Phe Ile Thr Tyr Ala Pro Asp Pro
165 170 175

tca att tat gct tgg tgc aat gac aaa ttg caa ccg atc gta ctg aaa 576
Ser Ile Tyr Ala Trp Cys Asn Asp Lys Leu Gln Pro Ile Val Leu Lys
180 185 190

tgt gaa gac gac gtc aac gaa tgg ttt gac cca aaa tct ttc tcg tgc 624
Cys Glu Asp Asp Val Asn Glu Trp Phe Asp Pro Lys Ser Phe Ser Cys
195 200 205

aga act gca tgc aaa agt gaa aac gtt ttt tcc gat cga aga gat tgt 672
Arg Thr Ala Cys Lys Ser Glu Asn Val Phe Ser Asp Arg Arg Asp Cys
210 215 220

aaa aaa tat tat caa tgt ttc ttg gtt aac aac aaa tgg caa ata aaa 720
Lys Lys Tyr Tyr Gln Cys Phe Leu Val Asn Asn Lys Trp Gln Ile Lys
225 230 235 240

cat tat gat tgt cca aat ggc ttg cac ttt gat aaa acg gag ttg cga 768
His Tyr Asp Cys Pro Asn Gly Leu His Phe Asp Lys Thr Glu Leu Arg
245 250 255

tgc ata ccc acg cca ccc ggc gaa gaa tgc aaa agt gag att gct aag 816
Cys Ile Pro Thr Pro Pro Gly Glu Glu Cys Lys Ser Glu Ile Ala Lys
260 265 270

<210> 11
<211> 272
<212> PRT
<213> Ctenocephalides felis

<400> 11
Met Lys Phe Leu Gly Ala Leu Leu Val Ala Val Phe Ala Leu Gly Ala
1 5 10 15

Val Ala Ala Asp Arg Asn Ser Pro Thr Tyr Val Arg Gly Phe Pro Val

<210> 12
 <211> 816
 <212> DNA
 <213> Ctenocephalides felis

<400> 12
 cttagcaatc tcacttttgc attcttcgcc ggggtggcgtg ggtatgcac gcaactccgt 60
 tttatcaaag tgcaagccat ttggacaatc ataatgtttt atttgccatt tgttggttaac 120
 caagaaacat tgataatatt ttttacaatc tcttcgatcg gaaaaaacgt tttcactttt 180
 gcatgcagtt ctgcacgaga aagattttgg gtcaaaccat tcgttgacgt cgtcttcaca 240
 tttcagtagc atcgggttgca atttgtcatt gcaccaagca taaattgatg ggtccgggtgc 300
 ataggttata aaagaattgg gatttgtgca tttcatgacg gtgcaatcag cttctgacga 360
 tttcttttta cacatatttt tagaatgac atatacatag ttaggtgggc attcgaaaac 420
 ctgaccttta ccatctttgc agaataagta tcttgtgcag tctttcggat ctggctgata 480
 tcctacaacg gcgcatgtag tttctgccgt cttacagttt tccccagggt ttgatgagca 540
 catatcatct acacaaaatg gagcatcgga atttgagtct ctgcaattga ttgttgtaat 600
 tgggggtttct tgtccagcgc acaacttcaa agtagaacia tcgtgacaaa atgttcccaa 660
 ctgcttatta gtacacttta tttcttcatt gccaaatgtt gttcgtgctc tggatcttcc 720
 cactgggaaa ccgcgacat atgtgggcga attcctgtca gcagccacag caccacaaggc 780
 aaacactgca accaataaag ctcctaagaa cttcat 816

<210> 13
 <211> 1714
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (294)..(1271)

<400> 13
 atcgcaagta tcgggtgccg cgttcaaatt tacaccggg gcctcttcac gatttttctc 60
 cgtgacacaa attatgacca gtgatccgaa acaaatctct acctgaacta cccacatggt 120
 attcagtga ctaaacaat ttccttacc agaatacaac ataagaacta acgatttgaa 180
 ctgtttataa ttcataatat aaccgcatct tttatttcta attttatctt ttagtgaata 240
 aatttatttg ttgttgaata aattaataat tgtgtacgtt caatttggtc gtg atg 296
 Met
 1

gag aaa ata gtt gga cgc gat gga aca gaa gtc atc aca tac gag ttt 344
 Glu Lys Ile Val Gly Arg Asp Gly Thr Glu Val Ile Thr Tyr Glu Phe
 5 10 15

gat gat gtg gcg acg ctg cct gaa gat atg cct atg gaa ttg aag gat 968
 Asp Asp Val Ala Thr Leu Pro Glu Asp Met Pro Met Glu Leu Lys Asp
 210 215 220 225

cac ata caa agt ctc aag ccg gat gag aga aaa caa att tgg gtt tcg 1016
 His Ile Gln Ser Leu Lys Pro Asp Glu Arg Lys Gln Ile Trp Val Ser
 230 235 240

tgt caa gga gaa aat cca gtt gat cga gaa aat ttg ggc cca gtt gaa 1064
 Cys Gln Gly Glu Asn Pro Val Asp Arg Glu Asn Leu Gly Pro Val Glu
 245 250 255

atg tat cca agc atg gga ttt gct gga tat tat tat cca ttc aga aac 1112
 Met Tyr Pro Ser Met Gly Phe Ala Gly Tyr Tyr Tyr Pro Phe Arg Asn
 260 265 270

caa cga gat tat ctt agt cca tta gtt gct gtt caa ttc aaa aga cct 1160
 Gln Arg Asp Tyr Leu Ser Pro Leu Val Ala Val Gln Phe Lys Arg Pro
 275 280 285

aca gtg gga cgt ttg atc aac gtg gaa tgt cgt gcc tgg gcc agg aac 1208
 Thr Val Gly Arg Leu Ile Asn Val Glu Cys Arg Ala Trp Ala Arg Asn
 290 295 300 305

atc atc tat cgt ggt ggc aac aag gat cga caa gga tcc gtc cat ttc 1256
 Ile Ile Tyr Arg Gly Gly Asn Lys Asp Arg Gln Gly Ser Val His Phe
 310 315 320

gaa ctg atg att gat tagaatcgac attattagt ttaattttac tttattgata 1311
 Glu Leu Met Ile Asp
 325

tcctaagcat tatcgttctg tggtatcgcg ccttgtagat cgttgcaaaa tagctcgtag 1371

gtcgatgttg tgaatagaat ttaagtttta attttaagta tgataattaa tgaagtgttt 1431

aataaatcaa aatgaacttt gagtataata gactttatat ttatatctaa ataaagttta 1491

cgcggttttg ttatcattaa aggtgtaaga ttttaatat tataattggt tatatatag 1551

ctataaatgt gtaaataat gttattta atagtacaaa acaagttgat ttatttaagt 1611

cctattgtga aatatgttag tgtagtataa aatgottata ttttattatg tatttagaaa 1671

atatattaca tttacttatt actttaaaaa aaaaaaaaaa aaa 1714

<210> 14
 <211> 326
 <212> PRT
 <213> Ctenocephalides felis

<400> 14
 Met Glu Lys Ile Val Gly Arg Asp Gly Thr Glu Val Ile Thr Tyr Glu
 1 5 10 15
 Phe Pro Tyr Met Arg Arg Ala Asp Lys Arg Thr Asn Trp Glu Lys Phe
 20 25 30
 Arg Gln Gly Cys Tyr Asn Pro Asp Glu Gly Ser Phe Leu Gly Arg Gln
 35 40 45
 Pro Ser Ala Trp Ala Arg Val Ser Leu Phe Tyr Leu Val Phe Tyr Thr
 50 55 60
 Val Leu Ala Ser Leu Phe Thr Ile Cys Met Tyr Thr Met Leu Ser Thr
 65 70 75 80
 Ile Asp Lys Glu Tyr Pro Lys Trp Gln Leu Glu Asp Ser Ile Ile Gly
 85 90 95
 Thr Asn Pro Gly Leu Gly Phe Arg Pro Ile Ala Asp Asn Thr Glu Glu
 100 105 110
 Gly Ser Leu Ile Trp Phe Asp Ala Lys Asn Glu Thr Glu Val Ala Lys
 115 120 125
 Trp Thr Thr Ile Ile Asp Glu Phe Leu Ala Pro Tyr Lys Asn Arg Ser
 130 135 140
 Gln Leu Pro Ser His Gly Glu Asn Gln Met Phe Cys Asp Tyr Glu Thr
 145 150 155 160
 Gly Pro Asn Thr Ala Asn Arg Val Cys Ala Val Ala Val Glu Lys Trp
 165 170 175
 Gly Ser Cys Thr Ser Gln Ala Asn Tyr Gly Phe Gly Gln Ser Ala Pro
 180 185 190
 Cys Val Phe Leu Lys Leu Asn Arg Ile Tyr Asn Trp Val Pro Asp Tyr
 195 200 205
 Tyr Asp Asp Val Ala Thr Leu Pro Glu Asp Met Pro Met Glu Leu Lys
 210 215 220

Asp His Ile Gln Ser Leu Lys Pro Asp Glu Arg Lys Gln Ile Trp Val
225 230 235 240

Ser Cys Gln Gly Glu Asn Pro Val Asp Arg Glu Asn Leu Gly Pro Val
245 250 255

Glu Met Tyr Pro Ser Met Gly Phe Ala Gly Tyr Tyr Tyr Pro Phe Arg
260 265 270

Asn Gln Arg Asp Tyr Leu Ser Pro Leu Val Ala Val Gln Phe Lys Arg
275 280 285

Pro Thr Val Gly Arg Leu Ile Asn Val Glu Cys Arg Ala Trp Ala Arg
290 295 300

Asn Ile Ile Tyr Arg Gly Gly Asn Lys Asp Arg Gln Gly Ser Val His
305 310 315 320

Phe Glu Leu Met Ile Asp
325

<210> 15
<211> 1714
<212> DNA
<213> Ctenocephalides felis

<400> 15
tttttttttt ttttttttaa agtaataagt aaatgtaata ttttttctaa atacataata 60
aaatataagc attttataact aactaacat atttcacaat aggcattaaa taaatcaact 120
tgttttgtac tatattaaat aacgtatatt tacacattta tagctaatat ataaacaatt 180
ataaatatta aaatcttaca cctttaatga taacaaaacc gcgtaaactt tatttagata 240
taaataataaa gtctattata ctcaaagttc attttgattt attaaacact tcattaatta 300
tcatacttaa aattaaaact taaattctat tcacaacatc gacgtacgag ctattttgca 360
acgatgtaca aggcgcgata acacagaacg ataatgctta ggatatcaat aaagtaaaat 420
taacactaat aatgtcgatt ctaatcaatc atcagttcga aatggacgga tccttgtcga 480
tccttgttgc caccacgata gatgatgttc ctggcccagg caccacattc cacgttgatc 540
aaacgtccca ctgtaggtct tttgaattga acagcaacta atggactaag ataattctcgt 600
tggtttctga atggataata atatccagca aatcccatgc ttggatacat ttcaactggg 660
cccaaatttt ctcgatcaac tggattttct ccttgacacg aaacccaaat ttgttttctc 720
tcatccggct tgagactttg tatgtgatcc ttcaattcca taggcatatc ttcaggcagc 780
gtcgcacat catcataata atctggtacc caattatata tcctgttaag ctttaagaaag 840
acacaaggtg cggattgtcc aaagccgtag ttagcctgtg atgtgcatga gccccacttc 900
tcgacggcta cggcacaac acgatttgca gtgttgggcc ccgtttcgta gtcgcagaac 960
atgtgatttt caccgtggct tggcaattga gaccgatttt tgtaaggagc taaaaattcg 1020
tcaattattg ttgtccattt cgcaacttca gtttcatttt tggcgtcgaa ccatattaga 1080
gatccctctt ctgtgttatc tgctattggc ctaaatccca gtccaggatt agttcctatt 1140

290	295	300	
aac atc atc tat cgt ggt ggc aac aag gat cga caa gga tcc gtc cat			960
Asn Ile Ile Tyr Arg Gly Gly Asn Lys Asp Arg Gln Gly Ser Val His			
305	310	315	320
ttc gaa ctg atg att gat			978
Phe Glu Leu Met Ile Asp			
325			
<210> 17			
<211> 326			
<212> PRT			
<213> Ctenocephalides felis			
<400> 17			
Met Glu Lys Ile Val Gly Arg Asp Gly Thr Glu Val Ile Thr Tyr Glu			
1	5	10	15
Phe Pro Tyr Met Arg Arg Ala Asp Lys Arg Thr Asn Trp Glu Lys Phe			
20	25	30	
Arg Gln Gly Cys Tyr Asn Pro Asp Glu Gly Ser Phe Leu Gly Arg Gln			
35	40	45	
Pro Ser Ala Trp Ala Arg Val Ser Leu Phe Tyr Leu Val Phe Tyr Thr			
50	55	60	
Val Leu Ala Ser Leu Phe Thr Ile Cys Met Tyr Thr Met Leu Ser Thr			
65	70	75	80
Ile Asp Lys Glu Tyr Pro Lys Trp Gln Leu Glu Asp Ser Ile Ile Gly			
85	90	95	
Thr Asn Pro Gly Leu Gly Phe Arg Pro Ile Ala Asp Asn Thr Glu Glu			
100	105	110	
Gly Ser Leu Ile Trp Phe Asp Ala Lys Asn Glu Thr Glu Val Ala Lys			
115	120	125	
Trp Thr Thr Ile Ile Asp Glu Phe Leu Ala Pro Tyr Lys Asn Arg Ser			
130	135	140	
Gln Leu Pro Ser His Gly Glu Asn Gln Met Phe Cys Asp Tyr Glu Thr			
145	150	155	160
Gly Pro Asn Thr Ala Asn Arg Val Cys Ala Val Ala Val Glu Lys Trp			

165	170	175
Gly Ser Cys Thr Ser Gln Ala Asn Tyr Gly Phe Gly Gln Ser Ala Pro		
180	185	190
Cys Val Phe Leu Lys Leu Asn Arg Ile Tyr Asn Trp Val Pro Asp Tyr		
195	200	205
Tyr Asp Asp Val Ala Thr Leu Pro Glu Asp Met Pro Met Glu Leu Lys		
210	215	220
Asp His Ile Gln Ser Leu Lys Pro Asp Glu Arg Lys Gln Ile Trp Val		
225	230	235 240
Ser Cys Gln Gly Glu Asn Pro Val Asp Arg Glu Asn Leu Gly Pro Val		
245	250	255
Glu Met Tyr Pro Ser Met Gly Phe Ala Gly Tyr Tyr Tyr Pro Phe Arg		
260	265	270
Asn Gln Arg Asp Tyr Leu Ser Pro Leu Val Ala Val Gln Phe Lys Arg		
275	280	285
Pro Thr Val Gly Arg Leu Ile Asn Val Glu Cys Arg Ala Trp Ala Arg		
290	295	300
Asn Ile Ile Tyr Arg Gly Gly Asn Lys Asp Arg Gln Gly Ser Val His		
305	310	315 320
Phe Glu Leu Met Ile Asp		
325		

<210> 18
 <211> 978
 <212> DNA
 <213> Ctenocephalides felis

<400> 18
 atcaatcatc agttcgaaat ggacggatcc ttgtcgatcc ttgttgccac cacgatagat 60
 gatgttcctg gcccaggcac gacattccac gttgatcaaa cgtcccactg taggtctttt 120
 gaattgaaca gcaactaatg gactaagata atctcgttgg tttctgaatg gataataata 180
 tccagcaaat cccatgcttg gatacatttc aactgggccc aaattttctc gatcaactgg 240
 attttctcct tgacacgaaa cccaaatttg ttttctctca tccggcttga gactttgtat 300
 gtgatccttc aattccatag gcatactctc aggcagcgtc gccacatcat cataataatc 360
 tggtagccaa ttatatatcc tgtaagctt aagaaagaca caaggtgcgg attgtccaaa 420
 gccgtagtta gcctgtgatg tgcattgagc ccacttctcg acggctacgg cacaacacg 480

atttgacgtg ttgggccccg ttctgtagtc gcagaacatt tgattttcac cgtggcttgg 540
 caattgagac cgatttttgt aaggagctaa aaattcgtca attattgttg tccatttcgc 600
 aacttcagtt tcatttttgg cgtogaacca tattagagat ccctcttctg tgttatctgc 660
 tattggccta aatcccagtc caggattagt toctattatt gaatcctcaa gctgccattt 720
 tgggtattcc ttgtctatcg tagatagcat tgtgtacatg catattgtga atagggatgc 780
 caaaactgtg tagaatacca agtaaaatag cgatacgcga gcccatgctg atggttgcct 840
 gcccaaaaaa ctgccctcgt ccggattgta gcacccctgc cggaactttt cccagttagt 900
 ccgcttatcc gctctcctca tatatggaaa ctogtatgtg atgacttctg ttccatcgcg 960
 tccaactatt ttctccat 978

<210> 19
 <211> 2240
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (1)..(1707)

<400> 19
 aca att tta aac gca tcc acg acc gtt gaa aaa aat cct gga cat caa 48
 Thr Ile Leu Asn Ala Ser Thr Thr Val Glu Lys Asn Pro Gly His Gln
 1 5 10 15
 acc agt att tca gaa gaa tct acc aca aaa ttg gta aaa aca acc act 96
 Thr Ser Ile Ser Glu Glu Ser Thr Thr Lys Leu Val Lys Thr Thr Thr
 20 25 30
 gaa gac aac cac ctc ggt gta aag agc ctg aat gaa cct ggt gat gaa 144
 Glu Asp Asn His Leu Gly Val Lys Ser Leu Asn Glu Pro Gly Asp Glu
 35 40 45
 caa gaa tta aaa aaa cca tca tca cat ggt aag gag cat att tct tta 192
 Gln Glu Leu Lys Lys Pro Ser Ser His Gly Lys Glu His Ile Ser Leu
 50 55 60
 cca gtg gct tca cca gta cca cca gta tcg cat atc ttc cag gct aca 240
 Pro Val Ala Ser Pro Val Pro Pro Val Ser His Ile Phe Gln Ala Thr
 65 70 75 80
 cca gga gac ctt tgt cca gcc ttc gac gat gca gat cgc ttc acc cag 288
 Pro Gly Asp Leu Cys Pro Ala Phe Asp Asp Ala Asp Arg Phe Thr Gln
 85 90 95
 aca gaa ctt ttg tcc agg ctg aca aac gat tgc agg tac gat aag ctg 336
 Thr Glu Leu Leu Ser Arg Leu Thr Asn Asp Cys Arg Tyr Asp Lys Leu
 100 105 110

ggt ggg aca tac agt gcc tta agt ttc acg att caa ata agt cgt gaa	960
Gly Gly Thr Tyr Ser Ala Leu Ser Phe Thr Ile Gln Ile Ser Arg Glu	
305 310 315 320	
atg ggt tac tat tta atg gat tac ttt ttg cca tca gta atg atc gtg	1008
Met Gly Tyr Tyr Leu Met Asp Tyr Phe Leu Pro Ser Val Met Ile Val	
325 330 335	
tcg tgt tcc tgg gta agt ttt tgg ctg gca gca gac caa tca gca ccc	1056
Ser Cys Ser Trp Val Ser Phe Trp Leu Ala Ala Asp Gln Ser Ala Pro	
340 345 350	
aga gtc acc tta ggt aca agc acc atg tta tca ttt atc act tta gca	1104
Arg Val Thr Leu Gly Thr Ser Thr Met Leu Ser Phe Ile Thr Leu Ala	
355 360 365	
agt gcc caa gga aaa act tta ccc aaa gta tcg tac atc aaa gct tca	1152
Ser Ala Gln Gly Lys Thr Leu Pro Lys Val Ser Tyr Ile Lys Ala Ser	
370 375 380	
gaa atc tgg ttt tta ggt tgc acc ggg ttt att ttt ggg agt tta gtg	1200
Glu Ile Trp Phe Leu Gly Cys Thr Gly Phe Ile Phe Gly Ser Leu Val	
385 390 395 400	
gaa ttc gcg ttt gtc aac aca att tgg aga cga agg aaa aat gtg gaa	1248
Glu Phe Ala Phe Val Asn Thr Ile Trp Arg Arg Arg Lys Asn Val Glu	
405 410 415	
ttg aaa aaa gtc aac agc aag tat att ttg aag tca act ttg acg ccg	1296
Leu Lys Lys Val Asn Ser Lys Tyr Ile Leu Lys Ser Thr Leu Thr Pro	
420 425 430	
agg ttg gcc cgg aag gag ttt cat gct tcg ttt aat tcg aat cct gga	1344
Arg Leu Ala Arg Lys Glu Phe His Ala Ser Phe Asn Ser Asn Pro Gly	
435 440 445	
ggt ggt aat aag gat gat cag gat ttg gga aga ggg att agg gtc ttt	1392
Gly Gly Asn Lys Asp Asp Gln Asp Leu Gly Arg Gly Ile Arg Val Phe	
450 455 460	
ccg ccg cct ttg gtc aag gct agg tct tgt tcc agt ctg gat agg agt	1440
Pro Pro Pro Leu Val Lys Ala Arg Ser Cys Ser Ser Leu Asp Arg Ser	
465 470 475 480	
aat gga tcc ggg aat ttt ttg agc gtc cat gga aat gat cac aaa gtt	1488
Asn Gly Ser Gly Asn Phe Leu Ser Val His Gly Asn Asp His Lys Val	
485 490 495	

ggt ggg aca tac agt gcc tta agt ttc acg att caa ata agt cgt gaa	960
Gly Gly Thr Tyr Ser Ala Leu Ser Phe Thr Ile Gln Ile Ser Arg Glu	
305 310 315 320	
atg ggt tac tat tta atg gat tac ttt ttg cca tca gta atg atc gtg	1008
Met Gly Tyr Tyr Leu Met Asp Tyr Phe Leu Pro Ser Val Met Ile Val	
325 330 335	
tcg tgt tcc tgg gta agt ttt tgg ctg gca gca gac caa tca gca ccc	1056
Ser Cys Ser Trp Val Ser Phe Trp Leu Ala Ala Asp Gln Ser Ala Pro	
340 345 350	
aga gtc acc tta ggt aca agc acc atg tta tca ttt atc act tta gca	1104
Arg Val Thr Leu Gly Thr Ser Thr Met Leu Ser Phe Ile Thr Leu Ala	
355 360 365	
agt gcc caa gga aaa act tta ccc aaa gta tcg tac atc aaa gct tca	1152
Ser Ala Gln Gly Lys Thr Leu Pro Lys Val Ser Tyr Ile Lys Ala Ser	
370 375 380	
gaa atc tgg ttt tta ggt tgc acc ggg ttt att ttt ggg agt tta gtg	1200
Glu Ile Trp Phe Leu Gly Cys Thr Gly Phe Ile Phe Gly Ser Leu Val	
385 390 395 400	
gaa ttc gcg ttt gtc aac aca att tgg aga cga agg aaa aat gtg gaa	1248
Glu Phe Ala Phe Val Asn Thr Ile Trp Arg Arg Arg Lys Asn Val Glu	
405 410 415	
ttg aaa aaa gtc aac agc aag tat att ttg aag tca act ttg acg ccg	1296
Leu Lys Lys Val Asn Ser Lys Tyr Ile Leu Lys Ser Thr Leu Thr Pro	
420 425 430	
agg ttg gcc cgg aag gag ttt cat gct tcg ttt aat tcg aat cct gga	1344
Arg Leu Ala Arg Lys Glu Phe His Ala Ser Phe Asn Ser Asn Pro Gly	
435 440 445	
ggt ggt aat aag gat gat cag gat ttg gga aga ggg att agg gtc ttt	1392
Gly Gly Asn Lys Asp Asp Gln Asp Leu Gly Arg Gly Ile Arg Val Phe	
450 455 460	
ccg ccg cct ttg gtc aag gct agg tct tgt tcc agt ctg gat agg agt	1440
Pro Pro Pro Leu Val Lys Ala Arg Ser Cys Ser Ser Leu Asp Arg Ser	
465 470 475 480	
aat gga tcc ggg aat ttt ttg agc gtc cat gga aat gat cac aaa gtt	1488
Asn Gly Ser Gly Asn Phe Leu Ser Val His Gly Asn Asp His Lys Val	
485 490 495	

cca aca ata aca gca caa tgt gca gac gat gcc gca agt gac cag att 1536
Pro Thr Ile Thr Ala Gln Cys Ala Asp Asp Ala Ala Ser Asp Gln Ile
500 505 510

tca gtt tgt gtc gat ggg gaa aac gaa gaa cct gca caa att gtt cac 1584
Ser Val Cys Val Asp Gly Glu Asn Glu Glu Pro Ala Gln Ile Val His
515 520 525

cac acc tgg acg acg atg aca cct caa gaa att tcc atg tgg att gac 1632
His Thr Trp Thr Thr Met Thr Pro Gln Glu Ile Ser Met Trp Ile Asp
530 535 540

aaa agg tcc aga att tgt ttc ccg ata gct ttt gct ata ttt aac ttt 1680
Lys Arg Ser Arg Ile Cys Phe Pro Ile Ala Phe Ala Ile Phe Asn Phe
545 550 555 560

ttt tat tgg ata ttt gtt tat tat tta 1707
Phe Tyr Trp Ile Phe Val Tyr Tyr Leu
565

<210> 23
<211> 569
<212> PRT
<213> Ctenocephalides felis

<400> 23
Thr Ile Leu Asn Ala Ser Thr Thr Val Glu Lys Asn Pro Gly His Gln
1 5 10 15

Thr Ser Ile Ser Glu Glu Ser Thr Thr Lys Leu Val Lys Thr Thr Thr
20 25 30

Glu Asp Asn His Leu Gly Val Lys Ser Leu Asn Glu Pro Gly Asp Glu
35 40 45

Gln Glu Leu Lys Lys Pro Ser Ser His Gly Lys Glu His Ile Ser Leu
50 55 60

Pro Val Ala Ser Pro Val Pro Pro Val Ser His Ile Phe Gln Ala Thr
65 70 75 80

Pro Gly Asp Leu Cys Pro Ala Phe Asp Asp Ala Asp Arg Phe Thr Gln
85 90 95

Thr Glu Leu Leu Ser Arg Leu Thr Asn Asp Cys Arg Tyr Asp Lys Leu
100 105 110

Ser Ala Gln Gly Lys Thr Leu Pro Lys Val Ser Tyr Ile Lys Ala Ser
370 375 380

Glu Ile Trp Phe Leu Gly Cys Thr Gly Phe Ile Phe Gly Ser Leu Val
385 390 395 400

Glu Phe Ala Phe Val Asn Thr Ile Trp Arg Arg Arg Lys Asn Val Glu
405 410 415

Leu Lys Lys Val Asn Ser Lys Tyr Ile Leu Lys Ser Thr Leu Thr Pro
420 425 430

Arg Leu Ala Arg Lys Glu Phe His Ala Ser Phe Asn Ser Asn Pro Gly
435 440 445

Gly Gly Asn Lys Asp Asp Gln Asp Leu Gly Arg Gly Ile Arg Val Phe
450 455 460

Pro Pro Pro Leu Val Lys Ala Arg Ser Cys Ser Ser Leu Asp Arg Ser
465 470 475 480

Asn Gly Ser Gly Asn Phe Leu Ser Val His Gly Asn Asp His Lys Val
485 490 495

Pro Thr Ile Thr Ala Gln Cys Ala Asp Asp Ala Ala Ser Asp Gln Ile
500 505 510

Ser Val Cys Val Asp Gly Glu Asn Glu Glu Pro Ala Gln Ile Val His
515 520 525

His Thr Trp Thr Thr Met Thr Pro Gln Glu Ile Ser Met Trp Ile Asp
530 535 540

Lys Arg Ser Arg Ile Cys Phe Pro Ile Ala Phe Ala Ile Phe Asn Phe
545 550 555 560

Phe Tyr Trp Ile Phe Val Tyr Tyr Leu
565

<210> 24

<211> 1707

<212> DNA

<213> Ctenocephalides felis

<400> 24

taaataataa acaaatatcc aataaaaaaa gttaaataata gcaaaagcta tcgggaaaca 60

```

aattctggac cttttgtcaa tccacatgga aatttcttga ggtgtcatcg tcgtccaggt 120
gtggtgaaca atttgtgcag gttcttcgtt ttccccatcg acacaaactg aaatctggtc 180
acttgcgga tctgtgcac attgtgctgt tattgttga actttgtgat catttccatg 240
gacgctcaaa aaattcccg atccattact cctatccaga ctggaacaag acctagcctt 300
gaccaaaggc ggcggaaga ccctaattccc tcttccaaa tctgatcat ccttattacc 360
acctccagga ttcgaattaa acgaagcatg aaactccttc cgggccaacc tcggcgtcaa 420
agttgacttc aaaatatact tgctgttgac ttttttcaat tccacatttt tccttcgtct 480
ccaaattgtg ttgacaaacg cgaattccac taaactccca aaaataaacc cgggtgaacc 540
taaaaaccag atttctgaag ctttgatgta cgatactttg ggtaaagttt ttccttgggc 600
acttgctaaa gtgataaatg ataacatggt gcttgacct aaggtgactc tgggtgctga 660
ttggtctgct gccagccaaa aacttaccga ggaacacgac acgatcatta ctgatggcaa 720
aaagtaatcc attaaatagt aaccatttc acgacttatt tgaatcgtga aacttaaggc 780
actgtatgtc ccaccaaag ctccgtgtct caggtcatcc aaatcagcct tgacaactgt 840
ttcatttacc cacatgtcag taaggacata ttccgtcaaa tgtagttctg gtgctaaagt 900
tactggtgca gttggttccc aagtcaatag gagttcactt gtattgtact tccaactttc 960
caacatcatc tgacactgtt gttcatcaaa aggaaatttc cttaaattca tccaacagta 1020
caaagttgcc ttcattcctga ccgaaaagac gactgtacca tcaggagcta ctgacaccaa 1080
catgtcctta gattgggcat ctgtgcccat aacctgggaa gatctctcgt tggcaacgaa 1140
tacatgtggg taccagatt ttgtccctga gctgcgattc gcccatgatg accgtcctgg 1200
gtgggtgcca cttttttgta ggccaatctg gcgtcctggg taacgaaatt ggaggaggac 1260
ggtcacggaa aatgacaatt cgtgcgcgtc cgtattttgt ataaaataca cgtaaattct 1320
ggcgccacc gggagcggcc ctgcaccatt gtgaggcccc aaaggcgct ccagottatc 1380
gtacctgcaa tcgtttgtca gcctggacaa aagttctgtc tgggtgaagc gatctgcac 1440
gtcgaaggct ggacaaagg ctctggtgt agcctggaag atatgcgata ctggtggtac 1500
tgggtgaagc actggtaaag aaatatgtc cttaccatgt gatgatggtt tttttaattc 1560
ttgttcacat ccaggttcat tcaggtctt tacaccgagg tgggtgtctt cagtgggtgt 1620
ttttaccaat tttgtggtag attcttctga aatactggtt tgatgtccag gatttttttc 1680
aacggtcgtg gatgcgttta aaattgt 1707

```

<210> 25
 <211> 1429
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (18)..(1211)

```

<400> 25
gtttttgtgt gagcgtg atg tct ccg gct ctt tta gcg gtt att gct gtg 50
Met Ser Pro Ala Leu Leu Ala Val Ile Ala Val
1 5 10

att ttg tgc att tta ttt aga att tta aat gta aat aca caa ccg gga 98
Ile Leu Cys Ile Leu Phe Arg Ile Leu Asn Val Asn Thr Gln Pro Gly
15 20 25

```


tca ata tgc caa gga tac aac gcc att gag ggt acg aaa tgg cta ctg	722
Ser Ile Cys Gln Gly Tyr Asn Ala Ile Glu Gly Thr Lys Trp Leu Leu	
220 225 230 235	
aat tgg caa aat ttc cgt cgt ttc tac ttg tat gtt tta aca gaa agt	770
Asn Trp Gln Asn Phe Arg Arg Phe Tyr Leu Tyr Val Leu Thr Glu Ser	
240 245 250	
gta aag aca ata att ttg aaa cac aga cat att ctc ctg tcc gat gaa	818
Val Lys Thr Ile Ile Leu Lys His Arg His Ile Leu Leu Ser Asp Glu	
255 260 265	
atg aaa tta aaa tgc caa ttg aat gag aga gat ata gca tcg gca gcc	866
Met Lys Leu Lys Cys Gln Leu Asn Glu Arg Asp Ile Ala Ser Ala Ala	
270 275 280	
act ttg ccg gaa ttg gat gac gcc tat acg aga aaa gtt cac aag ttt	914
Thr Leu Pro Glu Leu Asp Asp Ala Tyr Thr Arg Lys Val His Lys Phe	
285 290 295	
cca tct gta aac gct ttg tac aaa tgg agt tcc tgc ata aac tac atc	962
Pro Ser Val Asn Ala Leu Tyr Lys Trp Ser Ser Cys Ile Asn Tyr Ile	
300 305 310 315	
cag gac att gaa act cca atg gtg ttc ata aat gct aaa gat gat cct	1010
Gln Asp Ile Glu Thr Pro Met Val Phe Ile Asn Ala Lys Asp Asp Pro	
320 325 330	
cta ctc cat gat acg ctt cta gac cct ata aga aaa att gct ggt tct	1058
Leu Leu His Asp Thr Leu Leu Asp Pro Ile Arg Lys Ile Ala Gly Ser	
335 340 345	
tct aga aga atg atc tac gta gaa ctt tct cat gga ggt cat cca aga	1106
Ser Arg Arg Met Ile Tyr Val Glu Leu Ser His Gly Gly His Pro Arg	
350 355 360	
ttc ttt gaa agg ggt ctc ata tac ccc aat ccc gtt acc tgg ata gat	1154
Phe Phe Glu Arg Gly Leu Ile Tyr Pro Asn Pro Val Thr Trp Ile Asp	
365 370 375	
agg gca gtg ata agc ttg gtt ggn ggt ctc ctg ctt gca cat aat gaa	1202
Arg Ala Val Ile Ser Leu Val Xaa Gly Leu Leu Leu Ala His Asn Glu	
380 385 390 395	
aag agc tat taaaccaatt tagattttata attattattt ataaaaattt	1251
Lys Ser Tyr	
atgaaatatt tttttgttat aaattgtgga tttatttttt tattttgtgct gtcttttgca	1311

tcttgtgctc agttattoga tgttattgaa gttattttct aaatttatat atacgcggat 1371
 gtgaagatca atatatgtca taaagttagg ggatttaggg gaaaaaaaaa aaaaaaaaaa 1429

<210> 26
 <211> 398
 <212> PRT
 <213> Ctenocephalides felis

<400> 26

Met Ser Pro Ala Leu Leu Ala Val Ile Ala Val Ile Leu Cys Ile Leu
 1 5 10 15

Phe Arg Ile Leu Asn Val Asn Thr Gln Pro Gly Thr Pro Lys Ile Trp
 20 25 30

Cys Lys Asp Glu Thr Phe Leu Glu Ala Ile Tyr Lys Ile Ala Pro Leu
 35 40 45

Leu Arg Glu Pro Tyr Val Pro Pro Arg Leu Trp Gly Phe Ser Gly His
 50 55 60

Val Gln Thr Ile Val His Ser Ile Val Gly Arg Val Lys Cys Pro Leu
 65 70 75 80

Pro Leu Gly Glu Arg Val Tyr Leu Ser Leu Ala Asp Gly Ser Thr Leu
 85 90 95

Thr Tyr Asp Leu Tyr Lys Ala Leu Asn Pro Asp Lys His Glu Asp Glu
 100 105 110

Val Thr Leu Ala Val Cys Pro Gly Ile Ser Asn Ser Ser Glu Ser Val
 115 120 125

Tyr Ile Arg Thr Phe Val His Tyr Ala Gln Tyr Tyr Gly Tyr Arg Cys
 130 135 140

Ala Val Leu Asn His Ile Gly Ala Leu Ser Gly Val Pro Val Thr Asn
 145 150 155 160

Ser Arg Asn Phe Ser Tyr Gly His Thr Asp Asp Tyr Asn Glu Met Ile
 165 170 175

Arg His Leu Gln Ser Gln Phe Pro Pro Ser Lys Ile Ile Cys Val Gly
 180 185 190

009136-1101
 T02T-96650

Tyr Ser Leu Arg Gly Asn Ile Ile Thr Lys Tyr Leu Gly Glu Lys Thr
195 200 205

Lys Ile Lys Asn Gly Asn Ile Ile Gly Gly Ile Ser Ile Cys Gln Gly
210 215 220

Tyr Asn Ala Ile Glu Gly Thr Lys Trp Leu Leu Asn Trp Gln Asn Phe
225 230 235 240

Arg Arg Phe Tyr Leu Tyr Val Leu Thr Glu Ser Val Lys Thr Ile Ile
245 250 255

Leu Lys His Arg His Ile Leu Leu Ser Asp Glu Met Lys Leu Lys Cys
260 265 270

Gln Leu Asn Glu Arg Asp Ile Ala Ser Ala Ala Thr Leu Pro Glu Leu
275 280 285

Asp Asp Ala Tyr Thr Arg Lys Val His Lys Phe Pro Ser Val Asn Ala
290 295 300

Leu Tyr Lys Trp Ser Ser Cys Ile Asn Tyr Ile Gln Asp Ile Glu Thr
305 310 315 320

Pro Met Val Phe Ile Asn Ala Lys Asp Asp Pro Leu Leu His Asp Thr
325 330 335

Leu Leu Asp Pro Ile Arg Lys Ile Ala Gly Ser Ser Arg Arg Met Ile
340 345 350

Tyr Val Glu Leu Ser His Gly Gly His Pro Arg Phe Phe Glu Arg Gly
355 360 365

Leu Ile Tyr Pro Asn Pro Val Thr Trp Ile Asp Arg Ala Val Ile Ser
370 375 380

Leu Val Xaa Gly Leu Leu Leu Ala His Asn Glu Lys Ser Tyr
385 390 395

<210> 27

<211> 1429

<212> DNA

<213> Ctenocephalides felis

<400> 27

tttttttttt tttttttccc ctaaatcccc taactttatg acatatattg atcttcacat 60

```

ccgctatat ataaatttag aaaataactt caataacatc gaataactga gcacaagatg 120
caaaaagacag cacaataaaa aaaataaatc cacaatttat aacaaaaaaa tatttcataa 180
atttttataa ataataatta taaatctaaa ttgggtttaat agctcttttc attatgtgca 240
agcaggagac cnccaaccaa gcttatcact gccctatcta tccaggtaac gggattgggg 300
tatatgagac ccctttcaaa gaatcttgga tgacctccat gagaaagtgc tacgtagatc 360
attcttctag aagaaccagc aatttttctt atagggtcta gaagcgtatc atggagtaga 420
ggatcatctt tagcatttat gaacaccatt ggagtttcaa tgtcctggat gtagtttatg 480
caggaactcc atttgtacaa agcgtttaca gatggaaact tgtgaacttt tctcgtatag 540
gcgctatcca attccggcaa agtggctgcc gatgctatat ctctctcatt caattggcat 600
tttaatttca tttcatcgga caggagaata tgtctgtgtt tcaaaattat tgtctttaca 660
ctttctgtta aaacatacaa gtagaaacga cggaaatttt gccaatcag tagccatttc 720
gtaccctcaa tggcgttgta tccttggcat attgaaattc ctccaattat attaccattt 780
ttaatttttg tcttttcacc aagatatattg gtgatgatat tgccctctta actgtagccc 840
acacaaatta ttttagaagg aggaaactgt gattgcagat gtogaatcat ttcattataa 900
tcatcggtat gaccataact gaaatttcta gagttagtga caggcactcc agataaggca 960
ccaatatgat taagtacggc acatctgtat ccgtaattat gtgcgtaatt gacaaatgtg 1020
cgaatgtaga ccgactccga ggagttactt atgccagggc aactgccag agttacctca 1080
tcttcatggt tatccggatt aagagctttg tatagatcgt aagtgagcgt cgacccatca 1140
gccagtgaca ggtacacctt ctctccgagt ggcagtgggc acttgacgog gcccaactatg 1200
ctgtgcacga tcgtctgcac gtgcccgtg aatcccaga gtctaggagg cacataaggc 1260
tctcgtaaaa gcggagcaat tttgtaaatt gcctcaagaa acgtctcatc tttgcaccat 1320
atttttaggcg ttcccgggtg tgtatttaca tttaaaattc taaataaaaat gcacaaaatc 1380
acagcaataa ccgctaaaag agccggagac atcacgctca cacaaaaac 1429

```

<210> 28

<211> 1194

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (1)..(1194)

<400> 28

```

atg tct ccg gct ctt tta gcg gtt att gct gtg att ttg tgc att tta 48
Met Ser Pro Ala Leu Leu Ala Val Ile Ala Val Ile Leu Cys Ile Leu
1 5 10 15

```

```

ttt aga att tta aat gta aat aca caa ccg gga acg cct aaa ata tgg 96
Phe Arg Ile Leu Asn Val Asn Thr Gln Pro Gly Thr Pro Lys Ile Trp
20 25 30

```

```

tgc aaa gat gag acg ttt ctt gag gcc att tac aaa att gct ccg ctt 144
Cys Lys Asp Glu Thr Phe Leu Glu Ala Ile Tyr Lys Ile Ala Pro Leu
35 40 45

```

```

tta cga gag cct tat gtg cct cct aga ctc tgg gga ttc agc ggg cac 192

```

Leu Arg Glu Pro Tyr Val Pro Pro Arg Leu Trp Gly Phe Ser Gly His	
50 55 60	
gtg cag acg atc gtg cac agc ata gtg ggc cgc gtc aag tgc cca ctg	240
Val Gln Thr Ile Val His Ser Ile Val Gly Arg Val Lys Cys Pro Leu	
65 70 75 80	
cca ctc gga gag agg gtg tac ctg tca ctg gct gat ggg tcg acg ctc	288
Pro Leu Gly Glu Arg Val Tyr Leu Ser Leu Ala Asp Gly Ser Thr Leu	
85 90 95	
act tac gat cta tac aaa gct ctt aat ccg gat aaa cat gaa gat gag	336
Thr Tyr Asp Leu Tyr Lys Ala Leu Asn Pro Asp Lys His Glu Asp Glu	
100 105 110	
gta act ctg gca gtg tgc cct ggc ata agt aac tcc tcg gag tcg gtc	384
Val Thr Leu Ala Val Cys Pro Gly Ile Ser Asn Ser Ser Glu Ser Val	
115 120 125	
tac att cgc aca ttt gtc cat tac gca caa tat tac gga tac aga tgt	432
Tyr Ile Arg Thr Phe Val His Tyr Ala Gln Tyr Tyr Gly Tyr Arg Cys	
130 135 140	
gcc gta ctt aat cat att ggt gcc tta tct gga gtg cct gtc act aac	480
Ala Val Leu Asn His Ile Gly Ala Leu Ser Gly Val Pro Val Thr Asn	
145 150 155 160	
tct aga aat ttc agt tat ggt cat acc gat gat tat aat gaa atg att	528
Ser Arg Asn Phe Ser Tyr Gly His Thr Asp Asp Tyr Asn Glu Met Ile	
165 170 175	
cga cat ctg caa tca cag ttt cct cct tct aaa ata att tgt gtg ggc	576
Arg His Leu Gln Ser Gln Phe Pro Pro Ser Lys Ile Ile Cys Val Gly	
180 185 190	
tac agt tta aga ggc aat atc atc acc aaa tat ctt ggt gaa aag aca	624
Tyr Ser Leu Arg Gly Asn Ile Ile Thr Lys Tyr Leu Gly Glu Lys Thr	
195 200 205	
aaa att aaa aat ggt aat ata att gga gga att tca ata tgc caa gga	672
Lys Ile Lys Asn Gly Asn Ile Ile Gly Gly Ile Ser Ile Cys Gln Gly	
210 215 220	
tac aac gcc att gag ggt acg aaa tgg cta ctg aat tgg caa aat ttc	720
Tyr Asn Ala Ile Glu Gly Thr Lys Trp Leu Leu Asn Trp Gln Asn Phe	
225 230 235 240	
cgt cgt ttc tac ttg tat gtt tta aca gaa agt gta aag aca ata att	768

Arg Arg Phe Tyr Leu Tyr Val Leu Thr Glu Ser Val Lys Thr Ile Ile
245 250 255

ttg aaa cac aga cat att ctc ctg tcc gat gaa atg aaa tta aaa tgc 816
Leu Lys His Arg His Ile Leu Leu Ser Asp Glu Met Lys Leu Lys Cys
260 265 270

caa ttg aat gag aga gat ata gca tgc gca gcc act ttg ccg gaa ttg 864
Gln Leu Asn Glu Arg Asp Ile Ala Ser Ala Ala Thr Leu Pro Glu Leu
275 280 285

gat gac gcc tat acg aga aaa gtt cac aag ttt cca tct gta aac gct 912
Asp Asp Ala Tyr Thr Arg Lys Val His Lys Phe Pro Ser Val Asn Ala
290 295 300

ttg tac aaa tgg agt tcc tgc ata aac tac atc cag gac att gaa act 960
Leu Tyr Lys Trp Ser Ser Cys Ile Asn Tyr Ile Gln Asp Ile Glu Thr
305 310 315 320

cca atg gtg ttc ata aat gct aaa gat gat cct cta ctc cat gat acg 1008
Pro Met Val Phe Ile Asn Ala Lys Asp Asp Pro Leu Leu His Asp Thr
325 330 335

ctt cta gac cct ata aga aaa att gct ggt tct tct aga aga atg atc 1056
Leu Leu Asp Pro Ile Arg Lys Ile Ala Gly Ser Ser Arg Arg Met Ile
340 345 350

tac gta gaa ctt tct cat gga ggt cat cca aga ttc ttt gaa agg ggt 1104
Tyr Val Glu Leu Ser His Gly Gly His Pro Arg Phe Phe Glu Arg Gly
355 360 365

ctc ata tac ccc aat ccc gtt acc tgg ata gat agg gca gtg ata agc 1152
Leu Ile Tyr Pro Asn Pro Val Thr Trp Ile Asp Arg Ala Val Ile Ser
370 375 380

ttg gtt ggn ggt ctc ctg ctt gca cat aat gaa aag agc tat 1194
Leu Val Xaa Gly Leu Leu Leu Ala His Asn Glu Lys Ser Tyr
385 390 395

<210> 29
<211> 398
<212> PRT
<213> Ctenocephalides felis

<400> 29
Met Ser Pro Ala Leu Leu Ala Val Ile Ala Val Ile Leu Cys Ile Leu
1 5 10 15

Phe	Arg	Ile	Leu	Asn	Val	Asn	Thr	Gln	Pro	Gly	Thr	Pro	Lys	Ile	Trp	20	25	30	
Cys	Lys	Asp	Glu	Thr	Phe	Leu	Glu	Ala	Ile	Tyr	Lys	Ile	Ala	Pro	Leu	35	40	45	
Leu	Arg	Glu	Pro	Tyr	Val	Pro	Pro	Arg	Leu	Trp	Gly	Phe	Ser	Gly	His	50	55	60	
Val	Gln	Thr	Ile	Val	His	Ser	Ile	Val	Gly	Arg	Val	Lys	Cys	Pro	Leu	65	70	75	80
Pro	Leu	Gly	Glu	Arg	Val	Tyr	Leu	Ser	Leu	Ala	Asp	Gly	Ser	Thr	Leu	85	90	95	
Thr	Tyr	Asp	Leu	Tyr	Lys	Ala	Leu	Asn	Pro	Asp	Lys	His	Glu	Asp	Glu	100	105	110	
Val	Thr	Leu	Ala	Val	Cys	Pro	Gly	Ile	Ser	Asn	Ser	Ser	Glu	Ser	Val	115	120	125	
Tyr	Ile	Arg	Thr	Phe	Val	His	Tyr	Ala	Gln	Tyr	Tyr	Gly	Tyr	Arg	Cys	130	135	140	
Ala	Val	Leu	Asn	His	Ile	Gly	Ala	Leu	Ser	Gly	Val	Pro	Val	Thr	Asn	145	150	155	160
Ser	Arg	Asn	Phe	Ser	Tyr	Gly	His	Thr	Asp	Asp	Tyr	Asn	Glu	Met	Ile	165	170	175	
Arg	His	Leu	Gln	Ser	Gln	Phe	Pro	Pro	Ser	Lys	Ile	Ile	Cys	Val	Gly	180	185	190	
Tyr	Ser	Leu	Arg	Gly	Asn	Ile	Ile	Thr	Lys	Tyr	Leu	Gly	Glu	Lys	Thr	195	200	205	
Lys	Ile	Lys	Asn	Gly	Asn	Ile	Ile	Gly	Gly	Ile	Ser	Ile	Cys	Gln	Gly	210	215	220	
Tyr	Asn	Ala	Ile	Glu	Gly	Thr	Lys	Trp	Leu	Leu	Asn	Trp	Gln	Asn	Phe	225	230	235	240
Arg	Arg	Phe	Tyr	Leu	Tyr	Val	Leu	Thr	Glu	Ser	Val	Lys	Thr	Ile	Ile	245	250	255	
Leu	Lys	His	Arg	His	Ile	Leu	Leu	Ser	Asp	Glu	Met	Lys	Leu	Lys	Cys	260	265	270	

Gln Leu Asn Glu Arg Asp Ile Ala Ser Ala Ala Thr Leu Pro Glu Leu
275 280 285

Asp Asp Ala Tyr Thr Arg Lys Val His Lys Phe Pro Ser Val Asn Ala
290 295 300

Leu Tyr Lys Trp Ser Ser Cys Ile Asn Tyr Ile Gln Asp Ile Glu Thr
305 310 315 320

Pro Met Val Phe Ile Asn Ala Lys Asp Asp Pro Leu Leu His Asp Thr
325 330 335

Leu Leu Asp Pro Ile Arg Lys Ile Ala Gly Ser Ser Arg Arg Met Ile
340 345 350

Tyr Val Glu Leu Ser His Gly Gly His Pro Arg Phe Phe Glu Arg Gly
355 360 365

Leu Ile Tyr Pro Asn Pro Val Thr Trp Ile Asp Arg Ala Val Ile Ser
370 375 380

Leu Val Xaa Gly Leu Leu Leu Ala His Asn Glu Lys Ser Tyr
385 390 395

<210> 30

<211> 1194

<212> DNA

<213> Ctenocephalides felis

<400> 30

atagctcttt tcattatgtg caagcaggag accnccaacc aagcttatca ctgccctatc 60
tatccaggta acgggattgg ggtatatgag acccctttca aagaatcttg gatgacctcc 120
atgagaaagt tctacgtaga tcattcttct agaagaacca gcaatttttc ttatagggtc 180
tagaagcgta tcatggagta gaggatcatc tttagcattt atgaacacca ttggagtttc 240
aatgtcctgg atgtagtta tgcaggaact ccatttgtac aaagcgttta cagatggaaa 300
cttgtgaact tttctcgtat aggcgtcatc caattccggc aaagtggctg ccgatgctat 360
atctctctca ttcaattggc attttaattt catttcatcg gacaggagaa tatgtctgtg 420
tttcaaaatt attgtcttta cactttctgt taaaacatac aagtagaaac gacggaaatt 480
ttgccaatc agtagccatt tcgtaccctc aatggcgttg tatccttggc atattgaaat 540
tcctccaatt atattacat ttttaatttt tgtcttttca ccaagatatt tggatgatgat 600
attgcctctt aaactgtagc ccacacaaat tattttagaa ggaggaaaact gtgattgcag 660
atgtcgaatc atttcattat aatcatcggg atgaccataa ctgaaatttc tagagttagt 720
gacaggcact ccagataagg caccaatatg attaagtacg gcacatctgt atccgtaata 780
ttgtgcgtaa tggacaaatg tgcgaaatgta gaccgactcc gaggagtac ttatgccagg 840
gcacactgcc agagttacct catcttcatg tttatccgga ttaagagctt tgtatagatc 900

act tat gct ggt caa ttc gcc atg gag ggt ttc ctc aac cta caa tgg 433
 Thr Tyr Ala Gly Gln Phe Ala Met Glu Gly Phe Leu Asn Leu Gln Trp
 130 135 140

tct cgc tgg aag agg atc cta ttc acc cga atg att gcc atc ata cca 481
 Ser Arg Trp Lys Arg Ile Leu Phe Thr Arg Met Ile Ala Ile Ile Pro
 145 150 155 160

aca ttt ctg atg gca ttt ttc aat agc atc gaa gac cta tcg ggt atg 529
 Thr Phe Leu Met Ala Phe Phe Asn Ser Ile Glu Asp Leu Ser Gly Met
 165 170 175

aac gac ctt ctg aat gca gtg atg tcc tta caa cta cct ttt gcg acc 577
 Asn Asp Leu Leu Asn Ala Val Met Ser Leu Gln Leu Pro Phe Ala Thr
 180 185 190

cta ccg act ata gcg ttt acc agc aat gct gct atc atg gga gaa ttc 625
 Leu Pro Thr Ile Ala Phe Thr Ser Asn Ala Ala Ile Met Gly Glu Phe
 195 200 205

gtt aat gga gcg gtt aat tca gtc gtt gca atc ctt cta tcg att tta 673
 Val Asn Gly Ala Val Asn Ser Val Val Ala Ile Leu Leu Ser Ile Leu
 210 215 220

gta att gca atc aat att tat ttt gtg gtc gac cag gtt aat aat gga 721
 Val Ile Ala Ile Asn Ile Tyr Phe Val Val Asp Gln Val Asn Asn Gly
 225 230 235 240

gac ctg acg gaa ggc tat tta gct ctt ata gtg ata ttt gga at 765
 Asp Leu Thr Glu Gly Tyr Leu Ala Leu Ile Val Ile Phe Gly
 245 250

<210> 32

<211> 254

<212> PRT

<213> Ctenocephalides felis

<400> 32

His Asn Leu Tyr Leu His Ser Ala Leu Val Lys Ser Arg Asp Val Asp
 1 5 10 15

Arg Arg Asn Pro Glu Lys Val Arg Asp Ala Asn Tyr Tyr Phe Phe Ile
 20 25 30

Glu Ala Ala Ile Ala Leu Phe Ile Ser Phe Ile Ile Asn Val Phe Val
 35 40 45


```
attccaaata tcactataag agctaaatag ccttcggtca ggtctccatt attaacctgg 60
tcgaccacaa aataaatatt gattgcaatt actaaaatcg atagaaggat tgcaacgact 120
gaattaaccg ctccattaac gaattctccc atgatagcag cattgctggt aaacgctata 180
gtcggtaggg tcgcaaaaagg tagttgtaag gacatcactg cattcagaag gtcggtcata 240
cccgataggt cttcgatgct attgaaaaat gccatcagaa atgttggtat gatggcaatc 300
attcgggtga ataggatcct cttccagcga gaccattgta ggttgaggaa accctccatg 360
gcgaattgac cagcataagt ccagtcatt gtagaacttt gaccggctgc caatattccg 420
acagcccaaa tgtacacggc tgcagccccg aaggcacagc ctaaataaat gcctcctttg 480
tacaaatcgg cttctacaat ttcagtattg ttgttaaaga ctattagggc ttcctctcgg 540
atatatgggg ctgaactttt gcaagtgtct aagatttctt ggtagtagt tttaaataaa 600
ccatgtgcaa acacagcaac tacgaacaca ttattatga aagatataaa tagtgcaatc 660
gctgcttcga taaagaaata ataattagcg tctctcactt tctcggggtt tctcctgtcg 720
acatctctcg actttacaag ggactatgc aaatacaaat tgtga 765
```

<210> 34
<211> 762
<212> DNA
<213> Ctenocephalides felis

<220>
<221> CDS
<222> (1)..(762)

```
<400> 34
cac aat ttg tat ttg cat agt gcc ctt gta aag tcg aga gat gtc gac 48
His Asn Leu Tyr Leu His Ser Ala Leu Val Lys Ser Arg Asp Val Asp
  1             5             10            15

agg aga aac ccg gag aaa gtg aga gac gct aat tat tat ttc ttt atc 96
Arg Arg Asn Pro Glu Lys Val Arg Asp Ala Asn Tyr Tyr Phe Phe Ile
      20            25            30

gaa gca gcg att gca cta ttt ata tct ttc ata ata aat gtg ttc gta 144
Glu Ala Ala Ile Ala Leu Phe Ile Ser Phe Ile Ile Asn Val Phe Val
      35            40            45

gtt gct gtg ttt gca cat ggt tta ttt aaa act act aac caa gaa atc 192
Val Ala Val Phe Ala His Gly Leu Phe Lys Thr Thr Asn Gln Glu Ile
      50            55            60

tta gac act tgc aaa agt tca gcc cca tat atc cga gag gaa gcc cta 240
Leu Asp Thr Cys Lys Ser Ser Ala Pro Tyr Ile Arg Glu Glu Ala Leu
      65            70            75            80

ata gtc ttt aac aac aat act gaa att gta gaa gcc gat ttg tac aaa 288
Ile Val Phe Asn Asn Asn Thr Glu Ile Val Glu Ala Asp Leu Tyr Lys
      85            90            95
```


<210> 36
 <211> 762
 <212> DNA
 <213> Ctenocephalides felis

<400> 36
 tccaaatatac actataagag ctaaatagcc ttccgtcagg tctccattat taacctggtc 60
 gaccacaaaaa taaatattga ttgcaattac taaaatcgat agaaggattg caacgactga 120
 attaacgct ccattaacga attctcccat gatagcagca ttgctggtaa acgctatagt 180
 cggtagggtc gcaaaaggta gttgtaagga catcactgca ttcagaaggc cgttcatacc 240
 cgatagggtc tggatgctat tgaaaaatgc catcagaaat gttggtatga tggcaatcat 300
 tcgggtgaat aggatcctct tccagcgaga ccattgtagg ttgaggaaac cctccatggc 360
 gaattgacca gcataagtcc cagtcattgt agaactttga ccggctgcc atattccgac 420
 agcccaaatg tacacggctg cagccccgaa ggcacagcct aaataaatgc ctcttttga 480
 caaatcggtc tctacaattt cagtattgtt gttaaagact attagggctt cctctcggat 540
 atatggggct gaacttttgc aagtgtctaa gatttcttgg ttagtagttt taaataaacc 600
 atgtgcaaac acagcaacta cgaacacatt tattatgaaa gatataaata gtgcaatcgc 660
 tgcttcgata aagaaataat aattagcgtc tctcactttc tccgggtttc tctgtcgac 720
 atctctcgac tttacaaggg cactatgcaa atacaaattg tg 762

<210> 37
 <211> 604
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (26)..(430)

<400> 37
 tcaatactct tacttacaga tcaaa atg aga tcc ttc ctc ctc gct aca ttc 52
 Met Arg Ser Phe Leu Leu Ala Thr Phe
 1 5
 gca gcc ttg ttg gtt tgc tct gtt ttt gct aga cct caa gaa gat aaa 100
 Ala Ala Leu Leu Val Cys Ser Val Phe Ala Arg Pro Gln Glu Asp Lys
 10 15 20 25
 tat act agc aaa ttt gat aac atc aat tta gat gaa att ttg caa agc 148
 Tyr Thr Ser Lys Phe Asp Asn Ile Asn Leu Asp Glu Ile Leu Gln Ser
 30 35 40
 aat aga ttg ctc aac aac tat gta aac tgc ctt ctc gac aaa ggc agc 196
 Asn Arg Leu Leu Asn Asn Tyr Val Asn Cys Leu Leu Asp Lys Gly Ser
 45 50 55

Ser Glu Lys Gln Arg Glu Gly Ala Glu Lys Val Ile Arg Phe Phe Val
85 90 95

Asn Asn Lys Pro Glu Glu Trp Lys Lys Leu Ser Ala Val Tyr Asp Pro
100 105 110

Thr Gly Glu Tyr Thr Lys Lys Tyr Ser Thr Gln Ile Glu Gln Val Lys
115 120 125

Arg Gly Glu Pro Val Thr Val
130 135

<210> 39
<211> 604
<212> DNA
<213> Ctenocephalides felis

<400> 39
 tttttttttt tttttttttt tttttttttt tttttttttt atttaaatat gctctatttg 60
 tcctacaact acattttttt tattattaaa aacagaaata tctacagggtg aaaataacac 120
 tacgattcct aaatgacttg ccaatatatt gagaaatctc tttttggaaa tttaaactgt 180
 aacgggttcg cctctcttca cttgttcaat ttgggtgcta tatttctttg tgtactcgcc 240
 gggttgatcg taaactgcag aaagtttctt ccactcttct gggttggttg tgacgaaaaa 300
 tctgattact ttctcagctc cttctctttg tttctcgcta catttagcgc actcgttgga 360
 taaggcatca ggtaagactt ttttcaattc ttttccttct gctgtgcagc tgcctttgtc 420
 gagaaggcag ttacatagtg tgttgagcaa tctattgctt tgcaaaattt catctaaatt 480
 gatgttatca aatttgctag tatatttatc ttcttgaggt ctagcaaaaa cagagcaaac 540
 caacaaggct gcgaatgtag cgaggaggaa ggatctcatt ttgatctgta agtaagagta 600
 ttga 604

<210> 40
<211> 405
<212> DNA
<213> Ctenocephalides felis

<220>
<221> CDS
<222> (1)..(405)

<400> 40
 atg aga tcc ttc ctc ctc gct aca ttc gca gcc ttg ttg gtt tgc tct 48
 Met Arg Ser Phe Leu Leu Ala Thr Phe Ala Ala Leu Leu Val Cys Ser
 1 5 10 15

Val Asn Cys Leu Leu Asp Lys Gly Ser Cys Thr Ala Glu Gly Lys Glu
50 55 60

Leu Lys Lys Val Leu Pro Asp Ala Leu Ser Asn Glu Cys Ala Lys Cys
65 70 75 80

Ser Glu Lys Gln Arg Glu Gly Ala Glu Lys Val Ile Arg Phe Phe Val
85 90 95

Asn Asn Lys Pro Glu Glu Trp Lys Lys Leu Ser Ala Val Tyr Asp Pro
100 105 110

Thr Gly Glu Tyr Thr Lys Lys Tyr Ser Thr Gln Ile Glu Gln Val Lys
115 120 125

Arg Gly Glu Pro Val Thr Val
130 135

<210> 42
<211> 405
<212> DNA
<213> Ctenocephalides felis

<400> 42
aactgtaacg gggtcgccctc tcttcacttg ttcaatttgg gtgotatatt tctttgtgta 60
ctcgccgggtt ggatcgtaaa ctgcagaaaag tttcttccac tcttctgggtt tgttggtgac 120
gaaaaatctg attactttct cagctccttc tctttgttgc tcgctacatt tagcgcactc 180
gttgataag gcatcaggta agactttttt caattctttt ccttctgctg tgcagctgcc 240
tttgtcgaga aggcagttta catagttggt gagcaatcta ttgctttgca aaatttcata 300
taaattgatg ttatcaaatt tgctagtata tttatcttct tgagggtctag caaaaacaga 360
gcaaaccaac aaggctgcga atgtagcgag gaggaaggat ctcat 405

<210> 43
<211> 1227
<212> DNA
<213> Ctenocephalides felis

<220>
<221> CDS
<222> (312)..(1049)

<400> 43
gcgttttcta aaacaaactt ctttataatg taaataaata gaaatgaaat gtgaataaat 60
ttgagtatga aaacaaatta atcaacaaca caatttaatt tccttatttc atttataatg 120

Ser Met Leu Pro Ala Ala Leu Phe Thr Gly Leu Cys Cys Leu Leu Val
160 165 170

ggg ggt atc att cag ata ttc act cat tca acc att ttt gaa tta gtg 878
Gly Gly Ile Ile Gln Ile Phe Thr His Ser Thr Ile Phe Glu Leu Val
175 180 185

tta tgc agt ttt ggt gca cta ata ttc agc ttg ttt ttg ctt tat gac 926
Leu Cys Ser Phe Gly Ala Leu Ile Phe Ser Leu Phe Leu Leu Tyr Asp
190 195 200 205

acg cat gtt atg atg acg aca tta tca cca gaa gag tat att ttg gcc 974
Thr His Val Met Met Thr Thr Leu Ser Pro Glu Glu Tyr Ile Leu Ala
210 215 220

aca att aac ttg tac tta gat att gtc aat cta ttc ata tat att tta 1022
Thr Ile Asn Leu Tyr Leu Asp Ile Val Asn Leu Phe Ile Tyr Ile Leu
225 230 235

aga att ctg caa gca gca gac agg ggt taaatcatct gtgataaaat 1069
Arg Ile Leu Gln Ala Ala Asp Arg Gly
240 245

ataaatgggt caaaattcta tattgtatta tttatatatt taaaaatgcc ttgcttattt 1129
atattgtatg tttccattta ttgtatatag tttattttgt tatttttatgg ccaagattaa 1189
taaattcgaa attaatatgc aaaaaaaaaa aaaaaaaaaa 1227

<210> 44
<211> 246
<212> PRT
<213> Ctenocephalides felis

<400> 44
Met Ala Thr Val Pro Leu Met Phe Ala Glu Asp Asp Leu Glu Gly Gly
1 5 10 15

Gly Lys Glu Gly Ser Ile Glu Asn Asp Phe Ala Tyr Asn Asn Asn Val
20 25 30

Ile Asn Ala Ser Val Arg Val Arg Leu Gly Phe Ile Arg Lys Val Tyr
35 40 45

Gly Leu Leu Thr Val Gln Leu Leu Leu Ser Leu Leu Val Gly Ile Ala
50 55 60

Cys Gln Ile Glu Pro Val Gln Gly Ile Val Lys Ala Asn Asp Trp Leu
65 70 75 80

Val Leu Val Cys Met Ile Ser Ser Ile Gly Val Leu Ile Ala Leu His
85 90 95

Ile Lys Arg Lys Glu Thr Pro Thr Asn Phe Ile Leu Leu Thr Ile Phe
100 105 110

Thr Ile Thr Asn Ser Ile Ser Val Gly Val Leu Val Thr His Phe Lys
115 120 125

Ala Ser Leu Val Leu Gln Ala Ile Ala Ile Thr Leu Cys Val Val Ile
130 135 140

Gly Ile Thr Leu Phe Thr Leu Gln Asn Lys Leu Asp Leu Ser Met Leu
145 150 155 160

Pro Ala Ala Leu Phe Thr Gly Leu Cys Cys Leu Leu Val Gly Gly Ile
165 170 175

Ile Gln Ile Phe Thr His Ser Thr Ile Phe Glu Leu Val Leu Cys Ser
180 185 190

Phe Gly Ala Leu Ile Phe Ser Leu Phe Leu Leu Tyr Asp Thr His Val
195 200 205

Met Met Thr Thr Leu Ser Pro Glu Glu Tyr Ile Leu Ala Thr Ile Asn
210 215 220

Leu Tyr Leu Asp Ile Val Asn Leu Phe Ile Tyr Ile Leu Arg Ile Leu
225 230 235 240

Gln Ala Ala Asp Arg Gly
245

<210> 45

<211> 1227

<212> DNA

<213> Ctenocephalides felis

<400> 45

tttttttttt ttttttttgc atattaattt cgaatttatt aatcttggcc ataaaataac 60
aaaataaaact atatacaata aatggaaaca tacaatataa ataagcaagg cattttttaa 120
tatataaata atacaatata gaattttgaa ccatttatat tttatcacag atgatttaac 180
ccctgtctgc tgcttgcaga attcttaaaa tatatatgaa tagattgaca atatctaagt 240

gta tta gtc tgc atg atc agt agc att ggt gtg ctg att gct ctt cac	288
Val Leu Val Cys Met Ile Ser Ser Ile Gly Val Leu Ile Ala Leu His	
85 90 95	
atc aag aga aag gaa aca cca act aat ttt att ctt tta aca att ttc	336
Ile Lys Arg Lys Glu Thr Pro Thr Asn Phe Ile Leu Leu Thr Ile Phe	
100 105 110	
aca att aca aac tcc atc agt gtg ggt gtg cta gta aca cat ttt aaa	384
Thr Ile Thr Asn Ser Ile Ser Val Gly Val Leu Val Thr His Phe Lys	
115 120 125	
gct agt tta gta ctt caa gct att gca att act ttg tgt gtt gtt att	432
Ala Ser Leu Val Leu Gln Ala Ile Ala Ile Thr Leu Cys Val Val Ile	
130 135 140	
ggg ata aca ctc ttt aca tta caa aac aaa ctg gat tta tca atg ctc	480
Gly Ile Thr Leu Phe Thr Leu Gln Asn Lys Leu Asp Leu Ser Met Leu	
145 150 155 160	
cca gca gca ttg ttt act gga ctt tgc tgt tta ttg gta ggt ggt atc	528
Pro Ala Ala Leu Phe Thr Gly Leu Cys Cys Leu Leu Val Gly Gly Ile	
165 170 175	
att cag ata ttc act cat tca acc att ttt gaa tta gtg tta tgc agt	576
Ile Gln Ile Phe Thr His Ser Thr Ile Phe Glu Leu Val Leu Cys Ser	
180 185 190	
ttt ggt gca cta ata ttc agc ttg ttt ttg ctt tat gac acg cat gtt	624
Phe Gly Ala Leu Ile Phe Ser Leu Phe Leu Leu Tyr Asp Thr His Val	
195 200 205	
atg atg acg aca tta tca cca gaa gag tat att ttg gcc aca att aac	672
Met Met Thr Thr Leu Ser Pro Glu Glu Tyr Ile Leu Ala Thr Ile Asn	
210 215 220	
ttg tac tta gat att gtc aat cta ttc ata tat att tta aga att ctg	720
Leu Tyr Leu Asp Ile Val Asn Leu Phe Ile Tyr Ile Leu Arg Ile Leu	
225 230 235 240	
caa gca gca gac agg ggt	738
Gln Ala Ala Asp Arg Gly	
245	

<210> 47

<211> 246

Gln Ala Ala Asp Arg Gly
245

<210> 48
<211> 738
<212> DNA
<213> Ctenocephalides felis

<400> 48
accctgtct gctgcttgca gaattcttaa aatatatatg aatagattga caatatctaa 60
gtacaagtta attgtggcca aaatatactc ttctggatgat aatgtcgtca tcataacatg 120
cgtgtcataa agcaaaaaca agctgaatat tagtgcacca aaactgcata aactaattc 180
aaaaatggtt gaatgagtga atatctgaat gataccacct accaataaac agcaaagtcc 240
agtaaacaat gctgctggga gcattgataa atccagtttg ttttgtaatg taaagagtgt 300
tataccaata acaacacaca aagtaattgc aatagcttga agtactaac tagctttaaa 360
atgtgttact agcacacca cactgatgga gtttgtaatt gtgaaaattg ttaaagaat 420
aaaattagtt ggtgtttcct ttctcttgat gtgaagagca atcagcacac caatgctact 480
gatcatgcag actaatacga gccagtcatt tgctttaaca attccttgta caggctcaat 540
ttggcaggct atgcccacca gcaagctcaa taacaactga actgtaagta gtccatagac 600
ttttcgaatg aatccaagtc tcacacgaac agatgcatta ataacgttat tgttatatgc 660
aaagtcattc tctattgaac cttcttttcc accaccttct aggtcatctt cagcaaacat 720
aaggggtacg gttgcat 738

<210> 49
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 49
gcggatccta tgctgaattg caagaacctt g 31

<210> 50
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 50
caggtaccct cttttagaag caccgggtccc 30

<210> 51
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 51
cgggatcctg ctgacaggaa ttgcccac 29

<210> 52
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 52
catgtaccc ctggtttaag ccttacttag c 31

<210> 53
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 53
ccattattaa cctgggtcgac cac 23

<210> 54
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 54

ggaaacagta tgaccatg

18

<210> 55

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 55

cgctatagtc ggtagggtcg c

21

<210> 56

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 56

aattaaccct cactaaaggg

20

<210> 57

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 57

caaaactggt ctccccgctc

20

<210> 58
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Primer

<400> 58
 taatacgact cactataggg 20

<210> 59
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Primer

<400> 59
 ggttcgctc tcttcacttg 20

<210> 60
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Primer

<400> 60
 cggttgatc gtaaactgca g 21

<210> 61
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Primer

<400> 61
cgcggatcca gaagataaat atactagcaa atttgataac

40

<210> 62
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 62
gaggaattcc tcttttttggga aatttaaact gtaacgg

37

<210> 63
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 63
accaggncca ataataatttc taattgtttc aatacaaaact ataaanggta ttaaaattat 60
tggagttcct tgaggcacta gatgactaaa tatatgggta taattattaa ttcatacctan 120
taatataaat cttaatacata aagggaagtct taatctttaa gttaaagtta aatgactagt 180
tcttgtanaa atgtaattaa ataatacctaa aaaattatta aataaaataa atgaaaataa 240
tctaataaat ataaaagtgc ttcctatagg attataatttt ataagtaatt taaattcatt 300
atgaagtgtt ataataattt ttaatacaaat tatgttgtat cgggacggaa ttattcanaa 360
tatatttggga ataaataata ntcctaatac ctgccgggnn tttgtntnt ctctccnnct 420
ntccannctn atcnctncc cntcnnnnt ganatnctn tnnnnnctnt ctccccnctn 480
taenctgnnn ctccnnnttc 500

<210> 64
<211> 164
<212> DNA
<213> Ctenocephalides felis

<400> 64
gcagctaaca agaattgtatt aactgcattc caaagaagaa attattctga tgaattatct 60
ttgacatttg ctgctgccaa taagggtattc tatgactcag tagatgtaaa gcagggtggat 120
gttccatctt tcagtgggtgc ttttgggtatc ttagctaaac acgt 164

<210> 65
<211> 337
<212> DNA

<213> Ctenocephalides felis

<400> 65

cgcttccagt tgacgtttcg tctcatgcaa taattaatta aacttgtttg ttagaggtgc 60
aaaataaaat taaattaaaa tgactgcctg gagacaagct ggtttaaact acattaactt 120
ttcaacaatt gctgccccgaa tgggtccgcca agctttgaaa tctgatctaa aaaatgaggc 180
tttgaaacgg gacgtatcta gcattaaatt cacaccctgg aaggacggaa aagcgatcac 240
tggaaaaccg gaataaaatc aaatactcat ctataaaagt gaaaccaagt aatcacaaga 300
tggaataata gacaattcac tcaaattaat aatgtgt 337

<210> 66

<211> 201

<212> DNA

<213> Ctenocephalides felis

<400> 66

acaggccatt tatgtgccag ctgatgactt gacagatcct gccctgccca ctacattcgc 60
tcaattggac gccaccactg tattgtcccg tgccattgct gaattaggta tctaccagc 120
tgtggatcct ttggattcta catcccgtat tatggacccc aacatcattg gagctgaaca 180
ttacaacatt gcccgtagcg t 201

<210> 67

<211> 179

<212> DNA

<213> Ctenocephalides felis

<400> 67

accttgagac ttttggcagc taacaagaat gtattaactg cattccaaag aagaaattat 60
tctgatgaat tatctttgac atttgctgct gccataagg tattctatga ctcatgat 120
gtaaagcagg tggatgttcc atctttcagt ggtgcttttg gtatcttagc taaacacgt 179

<210> 68

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 68

acaccatcat tgtatcagcc actgcttctg atgctgcccc tcttcaatat cttgctccat 60
actctggatg tgotatgggt gaattcttcc gtgacaatgg aaaacatgct ttgatcatct 120
atgatgattt atocaaacaa gctgttgctt atcgtcaaat gtctctattg ttaogtcgtc 180
caccaggctcg tgaggcttat ccaggatgatg tcttctacct tcactcacgt ctacttgaac 240
gtgcccgtaa aatgtctgaa gctcatggag gtggctcttt gactgctttg ccagttattg 300
aaacacaagc tgggtgacgta tcagcttata ttccaactaa tgcatttcc attactgatg 360
gcaaatcttc ttggaaactg aattgttcta caagggtatt cgaccagcca tcaatgtagg 420
tttatctgta tctcgtgtag gtctgctgca caaaccaaag ccatgaaaca ggttgccggg 480

tcatgaaact ggaattagct

500

<210> 69

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 69

tacataatgg catctttgaa gttaaataatc gtaaccagga gcttaagctc atctgcagtc 60
gcgtctcaaa tggttaaacc acccgtaaa gtatatggaa ttgagggtag atacgcaact 120
gccttgact caggagccag taagaataaa gtactcgacg ccgtcgagaa agatttggtc 180
aaaatacaga ataacttaaa gaccgatgta aaattccgag atttcattgc caatccaaca 240
ttcaagcgct caattaaatc aaatgcattg aaggaagcca gcagcaagct gcaaatggct 300
ccagctactt ctaacttggt ggagttactt gctgagaatg gacgtttaaa taaactggaa 360
ggtgttatca acgcttataa agttatgatg tctgctcatc gtggagaggt tccatgtgaa 420
gttacaacag ctaaaccctt agatgagaat caacgaaaac aacttgaaag cctttaagag 480
gattcttaaa acccaaagaa aacttattac tacccttaag taatcctcat cttggtggaa 540
tgtcgtca 549

<210> 70

<211> 238

<212> DNA

<213> Ctenocephalides felis

<400> 70

actgctgac cctgtccctc gccccagcat aataaccatta ggttgaaacg tccatttcct 60
gcgtccaaca gattgcgagt gtaacggtaa cgatcaaatt tggcataccg cctccactcg 120
gctggatccg acttgtagct cagcatcaga tgattgacca actcgatgct tacatcatct 180
tcagcaaatg ctctgtgcaa ctgttcaact agatctttta gagaagtaac accttgggt 238

<210> 71

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 71

actaatgaca aggctggtgg tccccattat gtcttgctgt ggactactcc tcaatctatc 60
aaggagacat ttgttccaat cacatgtgtc gactatccat acatgagaga ataagctgcc 120
aaatcccccc caaagcacc acaccataac aataattcaa tggacactaa accaaagatg 180
cgtgttacaa atactctgtt caagatctcg atcataaaat ttgcacacag tccggttcac 240
ttttgatttc tgttattcag taactatttt atctttaccg cgcaattgga aaataacagg 300
tgaatcaaag aaattgattt tagtaattat ttttcttggt atataaataa aagaatatta 360
tagtaacatt ttgccattaa aaatattaat tttacctagg aagcaatatc aagtattcat 420
tcaagtcaaa tttgaagaca tttattaaaa atcgatgttg ccattttatt aaatagatta 480
tgaaaattat gggggtatta 500

Variable	Mean	SD	Min	Max
Age	34.5	10.2	18	65
Gender	0.5	0.5	0	1
Marital status	0.6	0.5	0	1
Education	12.5	1.5	9	16
Income	15.2	8.5	5	35
Health status	0.7	0.4	0	1
Stress level	2.5	1.2	1	4
Life satisfaction	3.8	1.5	1	5
Work engagement	4.2	1.0	1	5
Organizational commitment	4.5	1.1	1	5
Job satisfaction	4.0	1.2	1	5
Turnover intention	1.5	1.0	0	3
Organizational citizenship behavior	3.5	1.0	1	5
Employee well-being	3.2	1.1	1	5
Work-life balance	3.0	1.2	1	5
Job design	3.8	1.0	1	5
Supervisor support	4.1	1.1	1	5
Peer support	4.0	1.2	1	5
Organizational culture	3.9	1.1	1	5
Leadership style	3.7	1.0	1	5
Communication	3.6	1.1	1	5
Teamwork	3.5	1.0	1	5
Conflict resolution	3.4	1.1	1	5
Decision making	3.3	1.0	1	5
Problem solving	3.2	1.1	1	5
Time management	3.1	1.0	1	5
Stress management	3.0	1.1	1	5
Emotional regulation	2.9	1.0	1	5
Self-efficacy	2.8	1.1	1	5
Resilience	2.7	1.0	1	5
Optimism	2.6	1.1	1	5
Gratitude	2.5	1.0	1	5
Forgiveness	2.4	1.1	1	5
Empathy	2.3	1.0	1	5
Prosocial behavior	2.2	1.1	1	5
Aggression	2.1	1.0	1	5
Conformity	2.0	1.1	1	5
Autonomy	1.9	1.0	1	5
Control	1.8	1.1	1	5
Power	1.7	1.0	1	5
Cooperation	1.6	1.1	1	5
Competition	1.5	1.0	1	5
Collaboration	1.4	1.1	1	5
Conflict	1.3	1.0	1	5
Cooperation	1.2	1.1	1	5
Competition	1.1	1.0	1	5
Collaboration	1.0	1.1	1	5
Conflict	0.9	1.0	1	5
Cooperation	0.8	1.1	1	5
Competition	0.7	1.0	1	5
Collaboration	0.6	1.1	1	5
Conflict	0.5	1.0	1	5
Cooperation	0.4	1.1	1	5
Competition	0.3	1.0	1	5
Collaboration	0.2	1.1	1	5
Conflict	0.1	1.0	1	5

```
<210> 73
<211> 500
<212> DNA
<213> Ctenocephalides felis
```

```
<210> 74
<211> 500
<212> DNA
<213> Ctenocephalides felis
```

74

agcagttttc atcttatcca tagatccaaa atcacattca atcattttct gtagctggtc 420
acttggttta ccccccttcg gggaaagggtt tttccaaaag atagaatgat tgatgtgcct 480
cctccattga atttcaatgc 500

<210> 75

<211> 348

<212> DNA

<213> Ctenocephalides felis

<400> 75

cagtgcgaa aagcaagtgc cattatcggt ctctccgtcg atttacgaaa ctacacttca 60
attccaaaaa ggataactgg gactcgcat cgcactcact acccaacgac tacgatttaa 120
ttagctaaag gccaaattaa agcttcaaga tgcggttcaa gccagtagaa aacccaaaat 180
gcccaaaatg cggcaaatca gtatatgccg ccgaagagcg tgttgccggt ggacttaagt 240
ggcacaaaat gtgtttcaaa tgcggtatgt gcagcaaatt gttggactcc accaactgca 300
ctgagcacga aggtgaggtg ttctgcaaga actgccacgc ccgcaagt 348

<210> 76

<211> 451

<212> DNA

<213> Ctenocephalides felis

<400> 76

actatatata atatatatcg attttctata ttagtcaaatt atatgtgtta agcatttttt 60
tagagcattc ctatttaaaa ataaaaatgtt acgtcaaatt tgaaaattcc aagtaaaaaa 120
atagtttttt tctatatattg aattttgatc gttgtattac tacgaatgtt gccttgagat 180
gtgcgttcta ttttgtagaa taaatatcat tcgtaaatgaa ttaattcgcg ttttaagcct 240
gtttttggcg cagtcggggc atataatgtc ggcgccgtct gtgatgaagc cacggccgac 300
tagagaagct ttgcatgacg cgcaggtgaa gcagtcattg tgccaatggc gatcttcaaa 360
cgagatgaag cgagtgccac caattcctgt aatgggtttg gtgcaagccg tgcattctct 420
agcaaacaat tcaccgaaca ttcagcacag t 451

<210> 77

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 77

accacatatg acttcaatgg gacttggtta tggaggctct tcaactcactt cggggcaaaa 60
catatcttct gngggatcac tgccaaattc tattgaaact tgtaaattcca atctacctca 120
caataattct gcacaaacac cagaaaatcc ttacgtttat gatacagtaa cttctaatta 180
tagccaacca ccagtaactt catcaccata tgcaccagta gaacctaga gagcgagg 240
acatccatta aaaagtttca gtgttcggc accaccaca tcatcaactc caaatactcc 300
taacaccaag cataatgctt cccaaggtat taatcgacca caaaatgcat caccatataa 360
aaaaccttta atgattaata gactgcaagc aggaccatca gtttgtcatt catcagatga 420

agttcaacga ctgggtccga gccctcaact gaggaattgc atcaagaaat ggctatttgg 480
aaggcttaat gaaagactaa 500

<210> 78
<211> 550
<212> DNA
<213> Ctenocephalides felis

<400> 78
ggagaacgga caccaacagc aaggtggcga gtacaccaag gccatgaaca aggactggca 60
ctctggtcac ttctgctgct ggcaatgcga cgagtcactg accggccaac gctacgtact 120
ccgcgacgaa catccttact gcatcaagtg ctacgagagc gtcttttcca acacctgcga 180
ggaatgcagc aagatcattg gcattgattc caaggactta tcttaciaag aaaagcattg 240
gcatgaggca tgtttcttgt gcagtaaatg ccgcgtatct ctctgctgata aacagttcgg 300
aagtaaattg gacaaaatct actgtggaag ctgctatgat gcccaattcg cttccagggtg 360
tgatggttgc ggcgaaatct tccgtgcggg tactaaaaaa atggagtaca aaactcgtca 420
atggcatgaa aagtgtttct gctgctgtgt gtgcaagact gtatcggaac caaaagcttt 480
attctcgtga gcaggaaatt attgccagct gtatgaggaa agttcgcacc agatcattaa 540
atgcataaga 550

<210> 79
<211> 550
<212> DNA
<213> Ctenocephalides felis

<400> 79
ttatTTTTgt gtgatttaat aaattctagt gaactgttca ttgctaaata tcacatagaa 60
atgtctataa ataacgataa aactaatttg gatttgttgg aagaagacga cgagtttgag 120
gagtttccctt gcgacgattg ggcatcacac gacgaagatg cagatgatgt tacagtttgg 180
gaagataatt gggatgatga taatgttaaa gatgacttca gccagcaatt aaggtctcaa 240
atgagcaatc cttaaaggagc atctaaaaaa agttaagact atgtatatat tagaatataa 300
tgtaatttca aaaaacataa ttaataaact gattttttta atnttaaaaa aaaaaaaaaa 360
aaaaaaaaaa aaccctnngg gggggggccg gcccgaattc nccctatngg gagtcgnttc 420
aattcactgn ccngttttc acgtcngac tgggaaaccc tgcgttacc acttaatccc 480
ttgagcacat ccccttttcc cagtgggnaa taggaaaagg ccccccgntc cccttccaca 540
ttgncacct 550

<210> 80
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 80
gctatcagtc cacctaaaag caaaaccagc ccattaagtg tgtcttcaaa aggaagggcc 60
atagattttt caaatcagtt tgacgttggc gaaaagcaga aaacaaaaat agacgacatg 120

```

aatgacatga tgtcgacaaa aaacatcatc gccgataagg ataaaacgaa aatcgacagc 180
aaaggtcttg atgatgtaag catggatgat gacgatgacg acgatgtgat atcagcaggc 240
gacgtttcga aaagtaaatac agaacaatca ctggctcgaa aaccaatact gaccacaaat 300
gattcgccaa atatgcaagt gcattgtatc ttcaatggaa caacatataa gccaggacat 360
tcgttagata aacactgtga aggcattgtc aaatgttccg aagaaggctt ttggagatgt 420
gagcccagggt gtgaagctct tatgtcacia gactcctgat ggcaccctaa atgatgtcac 480
caccaaaaat gaaaggggtg ccgcgaaatg gccaccaaac aannatgctg cctgtctggt 540
tggcancgt 549

```

```

<210> 81
<211> 500
<212> DNA
<213> Ctenocephalides felis

```

```

<400> 81
actgttgctc ttgcgaaat ccgtcgttat cagaaatcca ctgaattggt gatccgaaaa 60
ttgccattcc aacgtttggt gagagaaatt gcccaggatt tcaagactga tctacgtttc 120
cagtcagctg ctattggtgc tctacaggaa gccagtggag cttatctcgt tggcttattt 180
gaagatacaa atttgtgcgc cattcatgcc aagagggtaa caattatgcc taaagatata 240
cagttagcgc ggcgaattcg tgggtgaacgt gcttaaaatt cgggttatca agaagccaga 300
tatcccacat gcacatctcg atatttacct attataaata tacacatata tgtggaaatc 360
gtgacattta tgtttaagca ttcactttta taacaaatca tctttacatc ttangacgta 420
gtcaaaaatt tggtacaat attttgcatt tgaatatgaa attttagctt taatcatatt 480
tatattatca tttttgtgta 500

```

```

<210> 82
<211> 238
<212> DNA
<213> Ctenocephalides felis

```

```

<400> 82
aaacaattcc gagattaacg gggctcgacc cggcgaaatc ggtgottgog tatcgagcgc 60
aataaaaaaca ttatataaca caaacaatgc agattattcg gttaacgaaa ttataagtga 120
aaaaaagtca ttaggaaaca caaaaattaa acataaaatc aaacctagca ttagcaaaaa 180
tgccgaaaaa aatattaaaa aaaatactga cattattcca gaaatgttaa aatctggt 238

```

```

<210> 83
<211> 500
<212> DNA
<213> Ctenocephalides felis

```

```

<400> 83
acagggnaaa acacaattat gccatacatt agctgtaaat tgccaggtaa acatatttca 60
caaagaatta tcagtattat aattaactgc attatctata acaaaaaatat cttatattcc 120
ataagaattt taaaatagat ttcattactt ttcaataat tagttattag ttaaaatatt 180

```


<213> Ctenocephalides felis

<400> 89

```
agtcgttcga gtctggttct gtaacaggcg gcaaaaagag aaacgcatga cgccccogaa 60
cacgatgggc agcgacgtct ccgaaagtct cgtgtacaac gcggcctacg accagaactt 120
gggccacagc ctggtccaca agtacgagga catgcccggc ggaggcggag gcgcaaggca 180
cttgatgac acgggacgac acctggaaca cggcgtgtcg cacctgggcc acgaaatggc 240
caacaagttc gaagggcacg acatgggaca gaacctggga cacaatttag gccacaatct 300
agttcataaa ttcgaagacg gcagcaggca catagagcag aacctcgagc ctagttattc 360
ggaagcgcag agtcctggca attagcatag gacgtgtaaa tacgtgagtt agggacataa 420
attcaagtga ctgattagtg actgaacgat gttataaatg acaacgtgag tgcgaaaaca 480
aaacgtcttg acgaagaaat atcggttaag taaaaaaaaa acaacaaat gaaataacca 540
ggggtaaaaa 549
```

<210> 90

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 90

```
acaagttccc gaccggtcgc ttcgcaaaac ggattctaata taaaatttag tgttttaaag 60
caagtgttac gtgttcttgt gagtgtttat tgtgtgcaaa aatcgcgccg agatgtccga 120
caacaaagga gagaacgcc catcggaatc accgaagggc aaaccgggca gacgaaacag 180
agctttacaa agaataaag aagagggtga agcactaatt aagtctctag gtggaacccc 240
tgaaattgaa ggcagaaggc gtactaggtc ttcactaaaa acgccagcaa cccccccagt 300
tacgccccca actccacga aaaaggcaaa atctacacca gcacccaaag gcacaaaggg 360
acgcgggagg ggaagaaaaa gtgaaaaggt ggaggaggcc gaagaaaagc aagaatcaac 420
agaacaagaa gacgaagtag acgaatcaa tgcacttact aaattcacct ccgaagacaa 480
ggccaagtag aacaaaatgt aaaacagaag accttcagaa gaaccgcaaa ctgatgactg 540
ttaatccga 549
```

<210> 91

<211> 251

<212> DNA

<213> Ctenocephalides felis

<400> 91

```
actcttccca cagtgagaga aaaagttaa gttctattca tcggtcgtct aaggaaacca 60
ctcatcagca gattgaaact caatctaata caggaataa acaccaagta tcatcatcta 120
acgctaccta cgttattgaa cgccgcaga aaacogttcg acgcgataat ctgttaactg 180
gcggtgaatt ttatgggtcaa aaagattcaa ggtatggtaa tttttctaata tgtgaacaaa 240
gtctaagaag t 251
```

<210> 92

<211> 375

<212> DNA
 <213> Ctenocephalides felis

<400> 92
 actccctttg cgccatgaag atttcaggcg catttcogagt atcaagtcg ccttccatgt 60
 ccagaaggtc ctggtgttcg tcctgttcgt ctgattcgga tgagtcgtcc agttcgtctc 120
 cgtctaataa ggacggacaa cggaacatat gtcacccgtc gcacatgcat tgctgagccg 180
 cctggtagtc gcggtgaag gctgcgggtg tctcgaagtt ctgggtgcaa ccatgctctt 240
 ctgttaatcc aacaggacag ggattagggtg gattacaata agcgggcaaa ttatccgttt 300
 ttacttgctg atgattcatt gcacttncat ctggtttgag cctttgttgg ccttcaccag 360
 cgccctnact tacgt 375

<210> 93
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 93
 gcaaaagcaa tgactgtatc aaatggcaat ttagtagatg ttagattttt tggagcacat 60
 gataaagcat ggatacctat gaaggattgc ttgctttata gtgagaaaga tccaaatttc 120
 agtgataaag gaaaacgctc tgatttcacg gaatcactta gggagtttagc tatatatgtg 180
 aaaaatcttg agcaaaaatt tggaaaattt tgtcatgcac cattcaaac tccatatcct 240
 aatgatcaag cagctattta tagtataatg ttaccttcac ataaattcaa atcagatatt 300
 gcaataaaaa aaataataac aaaacaaaaa gtttgtgaca taacggataa actactagag 360
 gacacaaaag gtaacatgaa aataaataat tcgttagatg aggatagtta tattgaagga 420
 tatgatactg aagatgagga agcaactaaa gatgtatcaa atgaatctgt gatatgtaat 480
 gatatgaaaa ttaaacaac ccttgcggtg cgtgttagaa tgagagnggt aaataattca 540
 caggaaaata 550

<210> 94
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 94
 aacacaccaa gaggacaaca ttgctcgtgc tggatatttg acattattgt atacaaatat 60
 agcggcacac gatcgtatctt attcgcgaag ttttgacaca ttcagcagat ttttggatac 120
 atacagcaat tcaggagtta tccgctgagg aaatcaattt gagcgcaatt agacgatcag 180
 atcgtatacg aatcaaaaaa caattaattg gcagtgattt tgcaggcca ttttagttaa 240
 cggcgcgcgt ttgttatact tttaactttg aaagttttct ccatcgatag ttttcgttaa 300
 tcaacgtgag gaaaagttct aatcaagatg gcagtagcag cagcacaaaa gaaccgcgaa 360
 atgttcgcta tcaagaaatc ctacagtatc gagaacgggt atccatccag gcgccggtcg 420
 ctggtcgacg acgcgcgttt cgagaccctc gtagtcaaac agaccaaaac gtctgtcttg 480
 aagaagccgc cagagagcac gattogagtc tcgatggcaa gaccatggac agatgtatat 540
 gatgacaag 549

<212> DNA
<213> Ctenocephalides felis

<400> 98
acgcgtaata ataaaaagag agaaaatatt taaaataaaa atattttaa ataaaaaaga 60
aaagaaaaac nttatcaaaa ttattaaaac caattcatta ttgcatcatc ttacaaaaag 120
acccgaaaat acacgacgtt aaaatatgaa ataagaaaaa aaaactctac taatactacc 180
aaccaattac tctataacta tttattatac aacaatccag ctggtcagat atgaatagca 240
tgccatgtgt tcaactatgt gaaaaaaagt aagtccttgt taaactaaca aatccgattc 300
ggcactgtct gctgggtca aaaaacttcg gctctctgca cgcgtttcgt 350

<210> 99
<211> 200
<212> DNA
<213> Ctenocephalides felis

<400> 99
actgctgtag ctaaactctgc ttctgaaatg gtgttagctg atgataactt ctcttctatt 60
gtcgtgctg ttgaagaagg tcgcgttatt tataacaaca tgaaacaatt catccgatac 120
ttgatttctt ccaacgttgg tgagggtgtt tcaatcttct tgactgcggc tcttggtctt 180
cctgaagctt taatccctgt 200

<210> 100
<211> 273
<212> DNA
<213> Ctenocephalides felis

<400> 100
catcttacat ctaccgggac atcatagcta caaaaaatct ctttangata acaaacaatt 60
attagtgtgt aaggcagata aaggaaacat ttcagtgggt ttgttaaaag aggaatatga 120
taaagaagca aagaaaattc tcagtgatga atctctatat gaagaattgg catcggatcc 180
gaacaactat caccatagac aagtttttaa atttataaat ttattagaga aaaagggaca 240
tattaataat accatatcat taaagttaaa agt 273

<210> 101
<211> 550
<212> DNA
<213> Ctenocephalides felis

<400> 101
aagaatatga acaaatagta gtagcaccag ttcaccctgg tttagatgta caggaagcac 60
aactaaatga agataatgag gatttcgcat caaggcgtcg ataccatcaa tcagctactg 120
tgcatggaca ttacgtaaac attgacggat agttgtttta attaatgac acctaataca 180
tatttgacca gtattgcaaa tttttgagtc acaaagctat tgatttagat ttttatatat 240
ccttataaaa gctatttcta tgggtataatt tatttaattt aaaaaaatt tgcaatatta 300

<400> 104

acacaaccaa actgttaatt ccctgcagcg cctgctgagg gacgccagag gttctataac 60
 tttcaaaatc gttccatcat acagaagtgc accgcctcct tgtgaggtaa gcgccgcatc 120
 tgatgcaatg cgtttattcc ggattaggcc tacacctgna ttagtatttg ngcgtgcca 180
 gtttgactat gatccttttg aagatgattt aataccatgt gctcaagctg gtatttcctt 240
 caaagttggg gatataattgc agattatcaa taaggatgac tatcactggg ggcaagcaag 300
 aaaggatgct gtcgaagggt ctgctggatt aataccttct cctgaacttc aagagtggcg 360
 aatagcaaat gcggctcttg aaaagaataa gaacgaacaa gttaattgct ctatatttgg 420
 aaaaaagaat taaaaatgcc gagataaata tcttgcaaaa catatgctgt tttgatggat 480
 ggatcttgnt acctatgagg 500

<210> 105

<211> 248

<212> DNA

<213> Ctenocephalides felis

<400> 105

accaagtaac ttttaccttc ttgtcagaag ttttcaaact gcacataaac tctgccgatt 60
 taccttcttc gatagtaaca tcaacaagtc ctttaacaat ttgtggtttt tcgccttttt 120
 ctggttcagg atccggtaaa tctaagatcg ttacttcttg tgatgttgcc tcgccttttt 180
 cattctttac aaccaatttg taagtaacctg cccnctncnc ttcnennanc annngtgcca 240
 tnantcan 248

<210> 106

<211> 494

<212> DNA

<213> Ctenocephalides felis

<400> 106

accgtcgtct tgtaaattgct gtgaatgata ttgagaagcg tattcctttc tctcaccacg 60
 atagattagg tttcctcact ttctgtccca ctaacttggg aactactgtc cgtgcctctg 120
 tgcacatcaa ggtccctaag ttggctgcta accgcgccaa gttggaagaa gttgctggac 180
 gttacaatct ccaagttcgt ggaactcgtg gtgaacacac tgaagctgaa ggtggtgtct 240
 acgatatctc caacaagagg cgcattggcc tgactgaata ccaagctgtc aaggagatgc 300
 acgatggcat tgctgaactc attaatgagg agaaagaaat gtaaactttt cactttttatc 360
 atcagactat tttttgtgat caaataaatg gtcattgcgat agatatttgg aaagatttcta 420
 tcagtatttc tatttttaa ataatattat atttatattgn tacaactttt ttttaataatt 480
 taatttttat ttgt 494

<210> 107

<211> 445

<212> DNA

<213> Ctenocephalides felis

<400> 107

acgtaaacad coatacattt agggcagtag gactttacca tagcctctcc aggcacatca 60
gaaagaccta atggcagcat aggctgacta tgcagtaaa ctctagggca atatccgaag 120
tctccagatt ggtatTTTTtC tatcatttga gctatacctc tatttgTTaa aatatactcg 180
gCGTgaatta gaccatataa catctctgca gcctgttcta ttgcatctga ctgatttgga 240
ttatcatcta tttcatcatc aggttctaaa totaatatca tatccaaggc ttgtctatat 300
cgtggaattt gctcattaag gcctgttaga ttgaatttat cctgtatata gtcttcatcc 360
acctcgcaaa agaattcatt tcctcgtaga tcacaaaacc aagatatcca tgagacctcc 420
tcagaactgc tcattttcct tttgg 445

<210> 108

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 108

acaatcgggc acaaccaaag cataatacaa caaactttca tCGtaataat taaatgatta 60
tttctatcac ttaccgaggc atttttCGca taaaacagag tgtgtccttt cagcctgaaa 120
tatcgccctc tccatcgctg taaggaccag gtctgcttca tgagaaatcc ctctctgggt 180
gcggcctgcc ggaaattaac agaaatcctt gtaatacaga aatgtgacaa gaatatTTaa 240
attggagttg acagtatcgt aatgaaatat cttgggcatg aaaagcattc gaagatagtc 300
tataatgggt ttaattcaat cagtttcaaa aaataagaat cttgatatcg atataaaatg 360
acaaaagctc tactaagatt ttttcttcag tataaaaaaa taatataaaa ttgttagaat 420
actttacata tatcgcataa ttcttaacac aatataaaaa tgaataatcc aaggnaacga 480
acgtatttaa tctcttacac 500

<210> 109

<211> 343

<212> DNA

<213> Ctenocephalides felis

<400> 109

caaaantgCG tctgagggac tgnntcttaa tttattcata atatcaaaat agttattnat 60
ttgcaaattg ntggtaattc actcgcggtt gtttatttat aattatatct ggntttcttc 120
tcgatttgct atttaacctn tagcagcctt ttgcactttt gctgntggta ataatttcct 180
atccgtaaca acacaatggg aaactgggaa taatcogtcc ttaagcacac atacgcaatc 240
actgtgcatt tcagttctac taatttggtc taccaaaactg tttgatacta cactgatgaa 300
gttcttggtt tgcttttggg ctttagcgtg ttggaagntc tgt 343

<210> 110

<211> 491

<212> DNA

<213> Ctenocephalides felis

<400> 110

actcctatcg tttgtaacat ttacattccc ctttacttta ttattttcat ctctgctac 60

gatctgcat tcatattgaat cttcaatatt taaattcgct ggagcatttt cgattttcttc 120
aagagccgtc aacgctcgca gttcttcttc tatcaatttc tttctagcag ctattgcttc 180
aaccgagctt atactttccc ttttttcaca ctgcgcgctt ttccttgaac gaaaactgcg 240
tctctttcga ctaccgcgagc ctcttttcac ggttctggaa atcccatcca aattttcttaa 300
aaattcctcc tgaggcggtg caccaggtgt agaccagggtt gaccaggatt tgacgtcctc 360
ctcttcgtct ccggaatctt ccacaacttc cgcctttttt agcttttctc ggacactcct 420
cgtgtaatcg gacaagtcg gacttgctcg accgcaaato gaaccaacac acagacaact 480
cgcctttcaa c 491

<210> 111

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 111

acggaacca tgggaatgta aacaaaattt atacttattg ttaaaatctc totaaaatat 60
ctgataattt gatgtgcata tgtctaata tcatatttga ccgccaaatg gcacattttt 120
ttactttttc ctccatatct ccaaagtcgt tggacctttc caaaattttg aacagttctt 180
catttagtca atacaaataa aatgtttttt aaattattca aatcggaacgc tccgttctct 240
taaaaactga gttaccgttt tgggcacttt ttgcccgcga tcttcggaac ggctagacct 300
acctttgcc aaaaactaatc agcacgtctt cttatcaata tgaatcgaat gtttttttaa 360
ttattcaaat cggttgattc gtgttccoga aatcgtcgac gaaaatttgt atccgcacat 420
acatacatc acacacatac acacacacac acacacacat ccatncattt ttctaaggat 480
gccaaaatgt cagaaacctt 500

<210> 112

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 112

acggtaaaca atgtatccaa gattcttata catattttatt gctacttcat tactaactcg 60
aacaacagg tcaacaaaat atgtattttt tctttctgat acatcttcta agaaattcat 120
taatttagct gctaagccaa gtctacgaaa atctggggaa acagttaggg ctgtgacatg 180
tccatgccaa ttttctccat gaccttctgc ttgcccatt atatatccca ttatttctcc 240
gtttggggac tcagcaactt gaaaatactc tggccaatgc gctagatatt gcatgtagaa 300
tgaaagtcca tatgtttctg ttagtggatc taaatttaca ttattaaaat taaacatatc 360
attgcaagta aacggtctta atgtagtcac attaatnta ttgcaaaaaga tatcagaagg 420
aatttaatta acaaaagtca cgcctttaat gaagtaaaat attcagagaa aaaataaaac 480
gagttactaa tatttctact 500

<210> 113

<211> 256

<212> DNA

<213> Ctenocephalides felis

<213> Ctenocephalides felis

<400> 116

gcgaagagag ttagatcact gtagaagaca gatttcagaa cagtccgggc aaatatctcg 60
tttacaatct gagttaagta ttagccaaaa aaatgaagga caatatacaa caaaattagc 120
tacagctttg gaaacagttg aaaaaaatat ggcacggagc aataaaaagg caatagatgc 180
tgaaagtaca gttgcaaagc ttaagaaaca gatttcacaa atgacgtcag agatgatggc 240
tcttcgaaat gaaaatacat cactgcgcta tgggtccagct gcaaattgatt ccaatagcat 300
gatgagatta tcaaattgagt tgcgaactgc agctagtact gcagagtcgt cactgaggca 360
actattaacg ggtgttgata atttaaggac tctgttagtt ctttagaaag ctctaaccga 420
atatttgaac cttctgatga caatttctgc gaaaatgaag atgaagatgc cggcctgact 480
ataatgtgta gtgaataaat ttntcattca aatgtcttgt attaaaataa atattctagt 540
ttatatgct

<210> 117

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 117

gaaatataga gaagttacta agaaaactat ggttaaacag tttgaatgtg ttaaggatca 60
cccgcgcca aaagctgtgt tctttacttg tatggacagt agaattgatac ctacaagatt 120
tacagaaact aatgttggtg atatgtttgt tgttcgaaat gctggtaatt tggtagctca 180
ttcccaacat tttttggatg aatatataag tgcgtgaacct gctgctttag agttaggttg 240
tgtagtaaat gacattcggc atataattgt ttgcggtcac agcgattgta aagcaatgaa 300
cctgctatat aaacttcagg ataattgctt cgcttctcag gataatagga gaatatcacc 360
actacgagca tggttatgtt cgcatgcca aagcagtcgt gataaatttc aacaacttgc 420
tcttagtgat tataaaacac ctcttatttt tactgctgag actcctttaa gaaaatttgc 480
ggttatatag atcctgaaga tagttttctg tgaagacaaa tatcacaggt aaatctctgc 540
acaactcaa

<210> 118

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 118

cacaacgttg agttatcctt gtaattgcaa gtgcatttaa aaatataatt tgtttggcat 60
agaatttgtg aaaaaacagg agcataaata tgctttcaaa cattcggatt caaataaaaa 120
ttgcccgtgt acgagaatta aaagatctgc gttatttttc ttcttctaca acaaatctcg 180
ctgaacacaa atgtcgggta ttggtggcgc gaggcggctc tggaggatgc accatggcat 240
caaaactttg ttcacatttg cgacaagatg atgtcattgt attagagcct agtcatgtcc 300
attattatca gccaatgttc acaatgattg gaggtggcat gaaaactttg gaacaatctc 360
gaaggccaat gtcttcagtt ttaccaaga aggcctcgtg gctaaaagat tcggcgaaaa 420
cattcaaacc gatcgaaaat tcagttttta catcatctgg tgacaagata acatacacta 480
tctcgtgtgc tgtggttgaa acttnttacg caagatcctg gttgtaaaag ctttgctcac 540

caaattggca

549

<210> 119

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 119

aatatgtgtt tactatttta tgatactgta agaaaaaacg atacgtacgt aattctgaca 60
ttgactgtca ttaataatgg gatatgactt tcgaggttat tattgagaaa tgaaaacgta 120
gcattttactt atagtacgtt atatgggttt tgattgggtt aaataaacta aataaaatga 180
agtgaacaa taacgatacg aatggccatt caaaaaggca tttggaagcg aagatctccg 240
aagctgaaga ggtaatagaa aaatctttat ctcaatgtga ggcagatgaa atttttatgt 300
ctttcaatgg gggcaaggat tgcactgttt tattacatat actccaaaga gtttataaac 360
ttaaatatgg ttctgatgca cctccattac tctgtttata tgtgagacct aatgatcctt 420
ttcctgagat agaaagtttt gtgctgagtg caaaaatctg tccccataaa tctaatacat 480
ttntctttcc ttaaaactgc tttaaaagat ctgcagtgcg nacctcactc aaactagttc 540
atggatnccg 549

<210> 120

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 120

gactacaaa tgggtgttcaa gctcaatgtc gtgcctttgt tgatacatat ggagatgcct 60
ttattgccat atttgtgcaa gaattagatc catcgaggt gtgtcccaag ttatctttat 120
gtccaaataa agaagttgaa gtgtttgaac aagaagatac cagagacaaa ccaacttgct 180
ctatgtgtct aatggctatg tttgaattag aagagaagct taaggaggat aaaaccaagg 240
cagctgttga gcaagcacta tctggattat gcaatcatct ttctgatcat ctgaaacctg 300
cttgcttaac cttagtaaat acttattata atcaattagt tgaaatgctg atggctgatt 360
ttaaaccaca agaaatttgc gtgtacctaa gattatgcca tgataagaat cccgacttaa 420
gtgaattgga tattcttggtg cagtaccaat taataagacc catgattaat gcaaatgaaa 480
tattggacac cacaattaat ggcaaaccat caggtgtgtc aaacaactta ttctgaaaat 540
tttgccaac 549

<210> 121

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 121

gcataatgat aatccacatg tagaaaaaca aattgttgag ttaatatatg atgccgtact 60
atttgaaaac ttgtcaaaaa attataaaaa taccgcattg tggcaagaaa tttttgtttt 120
gccattctac tccctatata aggagaattt gataaaccta atagacattt tacatataga 180

tacaagatat gcaattgaaa ataaattaca ccaagcagcc agggcaaagg cactgtattg 240
gactcatgca ctttattatt ttgagaagga gttaaagtac tcgtcaaatt ctccaacgtc 300
actaagtttt gatgtagaaa aattatataa aagggttctt tgtaaagaga attcagatac 360
aaccgatctt ggctggatac atatcacaca gatattcaaa aatttaccg cagaatgcat 420
atctgtaaaa tttgatggca aaatgattca tggataagtt ccgctggaac caactgtgcc 480
gccagatgta tgtcagagtc cgaattacgc gatgattctg tactcnccgt cgagataatg 540
atgtctctg 549

<210> 122

<211> 339

<212> DNA

<213> Ctenocephalides felis

<400> 122

accatggctg atacttcaat tccggcatca ggatgggtatt ttccatcttt catcactcca 60
agttttcttgn aaacgcaatt gatcatgcat tttcctgctt ttgaatctgg tatgtttctt 120
tgcaataatt tttcgatata atctgaagat gctcctgttt ctacagcaca atctttgctt 180
atctgcaaaa gtttttctt tgccttctt ttggtatagc tctgccgcag aatataaagc 240
gaccagtgtt ccaatcacca agaatatctt cattttgatt ttcttctact tcaaatttat 300
aaaacaattt gnttataatt ttcaaatgta gtatttact 339

<210> 123

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 123

cccgcacacc acacatacat caattttttc tgtgggtgcc aaatattcag aaaactcaaa 60
aacgtaaaga tatataaaat ttttcatttt cgattttttg cgattactat aacttgcccc 120
atgggaagtt aataatattg tgtagttatt tatgatcaat actaatatta tgtgtagtaa 180
tccataatca agacttttta tcatttttaa ctttcogtgg ggcaagttat agttatcgca 240
aaataatcga aaatgaaaat ttgatatac tttacgtttc aaaattttct gaatattttg 300
gtatacctta gaaaaaatgg atgtatgtgt gtatatgtgt atgtgtattt ttttatagag 360
gtgcgaaaaa aaatctccat aagcagacaa cgctagacgg tagtgtgaag atttttgcga 420
cgccttcttc ttactactgg cctttctnc ggtttattct tcaaaggtgc tgtgcatatg 480
ctgctaagct gccagtttct 500

<210> 124

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 124

acttaaaacta tgagctattc tgtaactcat tttttttatc tttattttgt aaaccatctt 60
gntcataaaa tttgctaact aogcatttac ttttttttg acctatata tttatctaaa 120

tactattcct aactctattc tatctgggcg tgcattaatt gtataaaaga gaaaaaaaaa 180
acagtctaaa caagtaattt ctattatata ataaatctcg caaaagaata aagaaacaac 240
agatgtaata cataataatt atatcaaaaa tagtcttact gttattataa aacatttgta 300
aagcgaatcg ggcattgaat ttaaaaaaaaa gaacaattat taaataatct cactatttaa 360
cctatgtgtt atacggtaac tcgccatttt ttttctcgc tttactttca ctttgcaaac 420
tatctctttc ctaaatccta gcgacttatg cattcttcgc tttcgcttat ttcattttatt 480
acatctagt 489

<210> 125

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 125

gattagtttg tagttaataa ttattaaaat gaacgactac ttatcttctc ctttaggato 60
agattctagt aatttagatg tgccagctcc tattaaaact ggaaagactg catatcaact 120
ttctccgtat cttaaattata atcctgttta cctgcctgca agccaaccog aattttatttt 180
ccctgaaggg gctagtagac aaaggggtcg ttttgaatta gccttttcgc aaattggato 240
atcatgtatg ataggagctg ctttgggagg catggctggt acatacaatg gtctgaaggc 300
tacaacattg ttgggtcaaa ctggaaagct gcgaagaaca caaatgttaa atcacattat 360
gaaacaaggt tcagctacgg caaatacact aggaacgata gcagttatgt attctggact 420
tggtgtgcta ctgcatggct tcgaggagaa gatgacgaaa taaatacttt aggtgctgca 480
cagencagga cacttataaa tcacagctga cttaggaatg tncattggtg gaggagtaga 540
tttctatac 549

<210> 126

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 126

ccggataaaa gatatttatt acaatggatg attcctcgcc agatttccat ttcaccacga 60
tcgattattg tgtttttggc ctggccctgt tcgtttcggc cctgacaggg ttgtactacg 120
gatgtaggaa atcaggggat gaatctgatg aaaacaatca gcagaacagc aataaaagaa 180
cagaagagtt tctaaatgga aactccaatt ttaggcctct gccagtggct gcctctcttg 240
tcgccagtta tgtgtctggt gtcacgattt tgggaacacc ttcggagata tttcggtagc 300
gaaccaata ttggataata gtgttgccaa tcgctctgat gagcctagtg gtggccaatg 360
ttttcttcc gatgttctgc aagttgcaag ttcagagttc ctatgagtat ttagaaatga 420
gatttaatcc gtggtgagga cgatagcatc cgctcatgtt gtcatagacg agctttgttc 480
taccaattgt atatatgtgc cagctttagc ttttaatcaa gtcaccggtg cgacgtcatg 540
gattgtacc 549

<210> 127

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 127

```
agatttttaag gaaccttttac aacctgcgaa aactgtcaat attcagatcg acgcggtatt 60
cagtaaagtt ttagtacctt atccatcaag cataattcaa ctagagcgct aacttgtact 120
ctatcatgga aatcattact ttactctgct ctatcgctact attaaacaac aaacaactgt 180
acaacttgct tctaagaaca tcgaaagctt ctctaaactg aaaccatttt cacaaagtga 240
taccacaata acttatggct catatgaaaa cataccagca ttactcatg acaaaatgac 300
gattcattat gagaatcata caccgttttt aacagttaca aaattggaaa gaacaattga 360
agtatcacat tggggaaata ttgcggttga agaaacaatt gacatggtgc attctggtgc 420
attactgaaa ggtcgtttcc agatatgaat tcaaaaagat tcacgaacgg ttggaagtgt 480
aaatcatata aaacttgctt ccagcttctg attggggtac tccgatcta tggaatattc 540
tcatcaata
```

<210> 128

<211> 307

<212> DNA

<213> Ctenocephalides felis

<400> 128

```
accattgtgg atgaggcaaa tcccatatac catgatgaag tttgcttggt tcgaaagaac 60
agttgaattg ttatacactc atgtggttcc caaaccaga gcagagtga ctaaaggtga 120
acaattgggt gtcacctttg ctgctggtta cattgccggt gtattctgtg cagtagtttc 180
tcactctgca gacacagttg ttccaagct aaatcaagac aaaggagcaa cagccattga 240
cgctgccaaa aaacttggct ttgctggttt atggaaggga ttaggacctt ggatcatcat 300
gatttgt
```

<210> 129

<211> 440

<212> DNA

<213> Ctenocephalides felis

<400> 129

```
nctcctggcc aagaaacaag attggattgc attncatgca aatgcgccag cgatggaaca 60
gggtactttt gcacccgcca agcatgtgct ccagttcacc atcataaacg atcagctgaa 120
gaagtgaag aagtaaccac aacttccttg gcaacgactc catgcactcc tggagagaag 180
actcaaattg attgtaatac ttgcacctgt gccagggatg gctctggata cgctgcact 240
cgcaaaatgt gtttgccagc caccacgat cgctgacgta gagaagctga aactgaagaa 300
gtcaaagaag tcacaactga tactttggca accactccat gcaaagcagg agagcaaaga 360
caagtggact gcaatacctg cacctgtgcc gcggatggaa ctggatatca atgcacccgn 420
caagcttggt agtttgcagt
```

<210> 130

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 130

```
acatatgatg ctacatccat tttgacagca tttcgctgga ccccgacatt gagcgtctgt 60
atggcattct cgagaacatc tatctttctc atgtccagca acaaaactga ctggacaaga 120
tcctggtttg ttttctaataa aaataattat taaaatagat ttattcttct acatttattc 180
taaataaaaa tattttttatt ttaataaaga catagcctat ggaacgaaac ttaccgagcc 240
gacattctcc aatgaaaact gttctaccgg aaacttcacg tcgttgcaag tctattccgc 300
atgaacttcc ttcgtgacag cggatatcag aacaaggatc aaagcatgag cattgaacac 360
aattattttt atccacagat ttatgaattc cgtaaggaca acgtaattct tcacacgacg 420
gatcgtcatt gatgcaattg ttaataatat tctctaaatg aaaaaaacia attagcaatc 480
attaaatctt cttaaaaaata 500
```

<210> 131

<211> 376

<212> DNA

<213> Ctenocephalides felis

<400> 131

```
actaattgtg gccccgcaa tttcaaaaat gttgatttag tttgagctgc acatgcacga 60
gccaataatg tttttcctgt cccgggtggc ccataaagta aaacgccttt ggggtggatgt 120
atccctaaat ttatgaactt ctctttgtgc gtcattggca atacaaccgc ttcaattagt 180
tcttggaatt gcttgctctaa gccaccaatg tcagagtatt gttctgtagg ccgctcatca 240
acctccattg ctttgactcg agcatcatat tcagcaggta atgtttccaa aattaaatat 300
gagtctttgt tgacacctac taaatctoca ggcttcaatt gttctggatc tactaaacct 360
ataacaggta gaaagt 376
```

<210> 132

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 132

```
acggaaccca tgggaatgta aacaaaattt atacttattg ttaaaatctc totaaaatat 60
ctgataattt gatgtgcata tgtctaata tcatTTTTga ccgcaaattg gcacattttt 120
ttactttttc ctccatatct ccaaagtcgt tggacctttc caaaattttg aacagttctt 180
catttagtca atacaaataa aatgtttttt aaattattca aatcggacgc tccgttctct 240
taaaaactga gttaccggtt toggcacttt ttgcccgtat cttcggaacg gctagacct 300
cctttgccaa aaactaatca gcacgtcttc ttatcaatat gaatcgaatg ttttttaaatt 360
tattcaaate ggttgattcg tggtcccgaa atcgtcgacg aaaatttgta tccgcacata 420
catacatata cacacatata cacacacaca cacacacata catccatttt ttctaaggta 480
tgccaaaatg gtcagaacct 500
```

<210> 133

<211> 235

<212> DNA

<213> Ctenocephalides felis

<400> 133

```
accaccccc aaaacaccat taatctcagc gaacgtttct ctagcggatt tgcctttaac 60
gaaggaaaac tttaaaatag cgcgaatttc ggcgtaagt aactccatgt ttacacgtct 120
ataactgtta aacgcaatat ccaaactaat catgcatagc atcgttttgt aggttatgtc 180
aagacctttc aaattatgta tagtattgcc agatacgagc tctgtagcgc tttgt      235
```

<210> 134

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 134

```
acatgtctat atttgctata ttattaccct acacaaatcc ttttcgatat aatcattaca 60
tagtatcaat agctcatcat gttatagctg cttgggtttt aaaatgcagg ctgcctttca 120
ggagagattt tgtaaaattt atcaccacgg tatgtgtgaa atataacaat tgtgttaact 180
tggtagttaa caaaatatat taatcaattc atgacgtata gggcctaaa tcaaattgca 240
ttgcaccatt tgaggaanga aggatattaa ttaaaccaga ggttacaact ttgaatgaag 300
aatcatctta cngaaaaaga aagtctaggt taacagaacc agntaggtat ttggagggtt 360
tcataagaaa aatgggtgaa atggtaaatg ncaccccaag ttttattggc ngccaaaaaa 420
aaatgnnttg canattancc taacntccaa attttgggta ntgnataatt ttttaatttac 480
cataatctan gggttnaaaa                                500
```

<210> 135

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 135

```
ctacgatatt tctgncaagt cgaactacaa ttttgaaaaa ccattcctgt ggttggctcg 60
caagcttatt ggagatccca acttagagtt cgttgcaatg ccagcattgg tgcctccaga 120
ggtcaccatg gaccagaat ggaaacagaa gatagagaag gatctgaagg aggctcaaga 180
aaccgctttg cgggaagatg atgaagactt ataagttact ttgttataga caacatgaat 240
gttttgata ttttgttaat gaaaatgggt ggtttgaatt tgaataatag agaatgggtt 300
ctgcaaaatg tctgaaaata attattttta cgccagatgt atttttttat tcttaatcat 360
ctgnaaagtg aaaaatttaa aaatgtgagt gctgtaatca tgaatgctga gtgtaataata 420
acttttttaa gnaactcgcc taatttttaa ttataattta atataatggt aaccagttgc 480
atccaagttt cagtggatatg                                500
```

<210> 136

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 136

```

atatagtggt ctattaaaga ataactgctg aataataaat taaacagaac caatggctgc 60
aattcgaaaa aagtttagtga ttgtcggaga cggagcgtgc ggtaaaaactt gtttgcctgat 120
tgtatttagc aaagatcaat ttccagaagt atatgtccca actgtttttg aaaactatgt 180
ggctgacatc gaagtogatg gaaaacaagt tgaacttgcc ctttgggata ccgccggaca 240
agaagactac gatcgcttgc gacctctcag ttatcctgat actgatgtca ttctgatgtg 300
tttttctgtc gactcacctg attcattaga aaatattcca gaaaaatgga ctccagaggt 360
gaaacacttt tgtccaaatg tacctattat tcttggttga aataagaaag atttacgcaa 420
tgacccaaac acaatcaaag agttaagtaa gatgaaacag gacctgtgaa gccacaggaa 480
ggcgtgcctg gccgagaaga taaatgcttt gatattttaa tgtctgttaa tcaaaagaag 540
agtccagagt                                     550

```

<210> 137

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 137

```

attaccaagt accacctgaa ggaaggatcc ttgtgggaca taaacaatta cctcgagctc 60
tcaccagcac caaacgggtga cagaatcgag caaatcagtg caaacgatca cccacaaaga 120
tcaattagat tctatgttag gaaacttaca agcagacatg tccagacaag gtgttaatac 180
tgctcaaaaa ggaagctgtg gtgcttgtga caaagccatt gttggccaag ttataactgc 240
tcttggtcaa acatggcatc ctgaacattt cgtttgcaac cattgcaacc aagaattggg 300
aacaagaaac ttcttcgaaa gagatggaca cccatactgc gaacctgatt accataattt 360
gttcagccca agatgcgcgt attgcaatgg agctattttg gataaatgcg taacagcctt 420
agaaaaaact tggcacacag agcacttctt ctgcgccccaa tgtgggtcaac aatttgggtg 480
aaaggttcac gaaaaagatg gtaacntat tgcgcgatgct atttcgattg ttgtccaat 540
gtggagatg                                     549

```

<210> 138

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 138

```

gaacgccccaa cgagtgaag atttattttc gtattttatt tcggtttatt gtgcaaacat 60
ttcgatactt ttgaagtatt gagaactgtg aatagtgtt ctgatttatt atttatatct 120
atcagcgctt gatccaagaa aagccttcca aaaatgagtg tcgctcgcta tgaagatatt 180
gttgaggcc ctttggccaa atttttgagc ctttcaaaaa gtattggcgg agatgttgcg 240
cagcaaactg tttttgtgga gaatgccttt aaggcacaat tagcttttat cacaactgct 300
agcactgcat cacaacctgc tctgatgtc ttacaacaat tattgcaacc gaccagccaa 360
cagatattag cggctcaaga atttcgagaa aagcatcggt catcgaactt cgtgaatcat 420
ttagcggcga ttagcgagag cattgcgcac tcggatgggt ttgatttccc taccctgtgt 480
gcatgtgaaa gaaatgcatg atgctgacgt tctcactgcc ggtcttgaag agaaaaggct 540
actgccaat                                     549

```

<210> 139
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 139
gccagtgccg ccatgtctga gagcttgaag caactgccag taatctgggt tttaggtgga 60
cctggatcgg gcaaaggaac ccaatgtgac aaaattgttg cttaaataatgg attcaccac 120
ttgtctactg gtgatttgct ccgagctgag gttcaaagtg ggtagatag aggcaagaac 180
ctcacggcta tcatggagag aggagaacta gtacccatgg acatagtact tgacttatta 240
aaagaagcta tgactaaggc cttgcccaca tctaaaggat ttttaattga tggatatccc 300
cgtgaaaaag accaaggtgt ggctttcgaa aatcaagtga ctcccgtaaa cacaatttta 360
tatttcgaat gtaagcctga aacattgggc gaacgtcttt tgggacgtgc aaaaacttct 420
ggccgagctg atgacaatga agagaccatc aaattgcgtt tgatcttcat gccataaatg 480
accaagtttt ggcttatccc agacagactg aagagataac gcgaaaggca gtgataatct 540
ttgcggaga 549

<210> 140
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 140
gttttatata taaatatagg attaatTTta aggaatatta tttaaatttat ttatatataat 60
atattttact ccncggccgc gannangeta gcngntntccc tgntcattgg cggnggeccc 120
ccnnnctctn cnnncncccc tcnctcccn cctcnncncc ccnncntct acntctctcc 180
cncncnccc nncctttntc tccccnccc ctcccnnnnn ctentctctc ttcengncnc 240
nennccentc nncctcennc cctcttccct centcnccn ncnnttcccn cctcncccc 300
tnncccneg ccccnncenn ctcccntccc tntnctncn ngtcnnnnnn cennctcenn 360
nctcenncc cccnctctc ctccccctnc nnnnncccc ctccccctt cncnctcnn 420
ntcgnnctcn nctctnnc cntncccnnn ncnncnct ntnctcngc ctcccccttc 480
ntnntccn cctccnctc 500

<210> 141
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 141
acaagtttga ttacaatgta atttctaagc atttgataaa agtttatatt gctagttttt 60
taattataat tacaataaac aacataaata tataacacat atgttttata tgttaacaac 120
attaaacttt ataaataagt attaatatat aagccattaa tatttgcttt agggtaaaaa 180
cttaatacaa ctccataaaa tataaggcct tgattattca caattatctg atttaaggca 240
ttaaggtaat tgttgaagtt tatgaattat aaaacttttt actttataat cataatataa 300

gttaattgac tgaataaata atttgtttgt ataggtaact atgaccagcc acccggttaac 360
 ttatggaaca tttcttgatt caactgttga ttigcatctt tagatctcat tgacataaat 420
 atgtaacctc cgataaactc atggatcacc ttgcaatctg ctgataagca tgaaaatatt 480
 atgntttctt cttcgaatga 500

<210> 142

<211> 285

<212> DNA

<213> Ctenocephalides felis

<400> 142

acctgngtat ttaattcttc ttattataac atgtttnagt atcatatatt naatatacct 60
 gaattacgga tatatnacta taaacaattt ctaaacataa aatcatattt acacaaatat 120
 tttttatcta ttatttcaat ttagcaaaaa cttctcccaa catttgatta cataaagcag 180
 cataaggatt catttccacc aactgatttt ttgcaaaggt ggagcctaag cttgcggctt 240
 tgttgaaatc ttcccgagct aaatcgtctt caccagtttt tctgt 285

<210> 143

<211> 198

<212> DNA

<213> Ctenocephalides felis

<400> 143

accacaggca ttgacacaag ggtaacaca actattgtcg atacaagctt ggtcttgtct 60
 gcattottca cttcctatgc attcgtatcg aaaacactgc ctcaaaggat ctcctttatg 120
 atttggcagg catgaacaaa caggtaaccc ctcatggctt ctagtgcatt gcgcatttac 180
 accacagggtg tgataggt 198

<210> 144

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 144

ataaaataat tttaaaaaaa atatttttaa atttattagt tatgtaatnt aaaatgaaat 60
 antaataata ataatagtag attagtattg taaaagaaaa attaaaatng tgtataagta 120
 aatttaattt attgtatctn gtgtatcaga gttaatttaa taaaagatat gaagaatatt 180
 nttctcgaat ttaaaagggg aatttattat ttaatttaat gnaatataat tattttaaatt 240
 aataaattag taatgaaatg ttattcgnnt ttaaagntat ctagnntttt tagaaaataaa 300
 ttttaatttat tatattttaa tatttatatt aatttattaa atatagatat tttaaatata 360
 aaatattttt agggataagc ttaaaaataa attattataa attaataaat tattttataaa 420
 tttatagggg tataaatatt cattaatata aaaangtata atttatttat aaataaatta 480
 aaattagtag atttttaaatt 500

<210> 145
 <211> 474
 <212> DNA
 <213> Ctenocephalides felis

<400> 145
 acaaaaacgc aggaaacccc acggnatgcat ttctataaaa taatatcata gatttgaaaa 60
 ctatccgaat ccaaaagttt taacgcctaa tatttatatc aaaactttcc caacattatc 120
 cctagattct ctttaataaaa ctttcatttc attattagaa ccaactogaac tcaagtttaa 180
 taaaaccatt tcaacattta ttaataattt caaaaacttt atatatcacc attatcccca 240
 gcagaagtat cggagcagtc ataaaattct tcatcagaat cttccggact ttcggactta 300
 ttttcaggat ttgttgaagc agcattgtcc cgttcttgct gccgagcaac gcagcaattc 360
 agcaattgta attgttggtg aagaatacac gtgcgaggat cgggaaatcc gcctccaact 420
 cccggtatct tgtggtatta tcaatcctgt atctcaattc ttccacaaat tcgt 474

<210> 146
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 146
 ttaaaaactaa ctcattcgng taatgttaac atttaaacca ttatacattg caacaagatc 60
 ctngngnggtt ggctccaaag ctttttcaca atacgcttct tattttattg atcctgtttt 120
 caaaccacaa aaacaaaatg aattagctca agaagggtan atccaaaact tgcacacgtg 180
 cctattaaag ctgctcgaaa taatgatact agctctgtat tccatgatga tctacttagc 240
 aaattcacaa attatgttat gaaaggcgga caaaagggtt tggttagaaa tttaatagat 300
 gaagcttttg tgaatattaa aagaatacaa attgaaaaat atcacaaaggc taaagaggaa 360
 aataagagta atattatact aaatccaaaa gtgatattgc acaatgctat tacaatttgc 420
 aggccaggtc taacacttac accaatcaaa agaggagggtg ntcgtatnag ttcctatccc 480
 gacactgaga agcactcata 500

<210> 147
 <211> 347
 <212> DNA
 <213> Ctenocephalides felis

<400> 147
 caattatgtt atttcacctt taaaacttgt attatagcat aatagacaga attatacttc 60
 atctattcat cgtttccgca aataaaccac ttogaaaatt acaatatatt ttgcataata 120
 aaattacata ggaaaaataa aacatctatt ctaattaact tactccaatt tttgaggcta 180
 ttttatcagc acatatttca gcaatatctc gacctagcac gccataatat aaccataaaa 240
 atagtaacaa aaaacctaag tccatccaag aatgoggcct ttgattgaag attaaattga 300
 ctccagcaaa tgttgccatc accattccat aaccaattat accaagt 347

<210> 148

<211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 148
 atttttaggc tttaaataac ccaatagatt gtaaaagatg taaaataaaa acactatctc 60
 tgatgcttcc acacaaatac ctatttagta aaataaaaact aaatgaaatt tattagtatt 120
 ttccaaactc atagctcagg caatattata attaatgttg tagaggcagt cttaataata 180
 gcatgcaaaa acaaaaaataa atattttgta aaaaaactat taaagtgaag aaactgatca 240
 atacagttaa actataaaaa aaaggtaaca cttataact aacagccgaa caaaataaga 300
 aagaagcact tcattaaaca cttacaggta tctggttaaa tcctctatat caaccagcat 360
 gctatcttgg ctcatatgaa gttcatcaog attcattaat aagcccacca actgttcatt 420
 aaatatttca acctgtgtat ggagtcggca aacaacaacc tgcaattgag caatcgtcac 480
 gctgggtcaac aaacgccggg 500

<210> 149
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 149
 acttacaact gcctaaatgg tccggtatgt cttntatggt cggtaaaggg tatgaatcac 60
 ccagggggcgt aacgtgcctt ggcgggggccc catatcaaaa tcggtttggg ggctccccta 120
 aagatttttc ataattttaa gaaacataaa gagattaata aattcattta ataaaattaa 180
 aagaagattt atttatcaaa ttttcaaata tacatcgaat attattttta atattttaca 240
 agtaactaaa attaaatatt cactctcctt gcctttttat cagcaaaactg atttattaag 300
 tcatttatag ctgatgttgt ttttagtttt totaatgttt ttgcctctat ggacaataga 360
 gacaggtctg atagacgttc ctgttttatt gatgttctga gataattttg gattaatttt 420
 aattttgaaa aactcgtttc agcagttgcg gttgtaactg gaagggcaag aataaaatgc 480
 aagctgttat tacatccgga 500

<210> 150
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 150
 gctaaaccac gtgttttatta atgtataaat tattattaaa caagttttcc ggaaatatat 60
 tgtagatcaa actaaacagg aataaaattg aataatacac aatgggaaaa ctgaacgtat 120
 caatattacg ttatttagac aaagaagact ttcgcggttt gacggccatt gagatgggca 180
 tgaaaaatca tgaactggtg ccgggatctc ttacagctct gatcgcaaat ttgcgacatg 240
 gtggtgttca caaaatttta agagaacttt gcaaacatcg gttgctgagc tacgaacgtg 300
 gaaaacatta tgatggatac aggctgacaa atatgggcta tgattatctg gccttgaaag 360
 cattaactat gagaaacgtt gttgagtcac ttggaaatca aattggtgtt ggtaaggaat 420
 cgaatattta tgttgtagca gatgaagaag gtgaagcctt atgtcttaaa ctcccagatt 480
 ggccgaacat gctttcagat gtaagcaaat agagatatca tcacatagca tagagctctg 540

gnttattatc

550

<210> 151

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 151

ggaacgtgca acatatttag ttatttaaata aatttgataa ttttaacaaaa atggcaacca 60
ttgttcgcaa aatcatcagc accaaagctg cagccaagcc agtggcccca tataatcagg 120
caattttggc cgcacgcact ctctacgtat cgggatgtct aggattggac gcctgcacaa 180
tgaaattggc cgcaggagga gctgccgccg aagcaagaca agctttgacc aaccttggac 240
atatcttggc cgcctggcgc tcatcatatg accgtgttgt gaaaaccacc gtcttacttg 300
ccgatttagc tgaccttgca gctgtaaatg aagtttatgg acaagtgttt acacatgacc 360
accctgccag atcctccttc aagttggagc actaccaatg aatgctaagg tcgaaattga 420
agtcgttgca gtttcaggag acgtccgaac tattccggag tggaatgcta agaaagtaag 480
aataatatca taattaatag tgttcagtaa attatagttt atatgtaaat aattaactac 540
catagtttt 549

<210> 152

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 152

acgaaagatt tcgatggggc ggagcggggc agatggagga cagctacgaa gcggctttac 60
gacgaggact gccctatccc gtccttacgg tcgctgaata cttctcgctg ggacaagaag 120
gattcgcttg gggaggacaa tatagagctg cgggatatta tgcttcgatt ttacttggtg 180
cggcattggc gtgttggtcg cttatgaacc tgctcctggc agctgtcccg cgatatggag 240
cctatttgat gtttacgact gggctttttat tggctgccac ggatttaggc tactatctga 300
tgttgccagc aaggcctcta cgaattgtac ttgaaggcgg agcgcctcgat ttctgattag 360
gatggtgctt ctggctggtc ttagttgctg gaagtatatg ctcatcttcc ggattagtaa 420
taacgtgcgt ggatttgga tttctcaccg atttctgact gtcttgaggt gactatgatc 480
tcctacgat cgnacgttat attgaagaga cccgacacgc ctcaggaaac gcacagtggc 540
gnaacngcg 549

<210> 153

<211> 633

<212> DNA

<213> *Ctenocephalides felis*

<220>

<221> CDS

<222> (67)..(507)

<210> 154
 <211> 147
 <212> PRT
 <213> Ctenocephalides felis

<400> 154
 Met Lys Ile Phe Leu Val Ile Gly Thr Leu Val Ala Leu Tyr Ser Ala
 1 5 10 15

 Ala Glu Ala Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu
 20 25 30

 Gln Ile Gly Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp
 35 40 45

 Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Pro Gly Lys
 50 55 60

 Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly
 65 70 75 80

 Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu
 85 90 95

 His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys
 100 105 110

 Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala
 115 120 125

 Met Glu Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala
 130 135 140

 Ile Pro Ile
 145

<210> 155
 <211> 633
 <212> DNA
 <213> Ctenocephalides felis

<400> 155
 tttttttttt ttttttttaa atagcatttt attcctacgc ccacatcgtg acaacttcac 60
 actacaattt aacgactaca ttttgacagg tcttcaaccg aocataatatt aaatttttaa 120
 ctattatatt ggtatcgcgt ccattaggtt gtgttctttg gccatcctca cgccgcactc 180
 cattgctttg gcagcaattt cgactcgtc ttctcctttg gcttcgctgt cacattcggg 240

gaa cac gat tca gaa tta atg gaa aaa gtt aag aaa atc gca acc gaa 397
 Glu His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu
 100 105 110

tgt gac agc gag gcc aaa gga gaa gac gag tgc gaa att gct gcc aaa 445
 Cys Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys
 115 120 125

gca atg gcg tgc ggc gtg agg atg gcc aaa gaa cac aac tta atg gac 493
 Ala Met Ala Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp
 130 135 140

gcg ata cca ata taatagtaaa aaaatctttg ttaggtcggg tgaagacctg 545
 Ala Ile Pro Ile
 145

tcaaaatgta gtcgttaaata tgtagtgtga agttgtcacg atgtgggctg aggaataaaaa 605

tgttattttaa aaaaaaaaaa aaaaaa 631

<210> 163
 <211> 147
 <212> PRT
 <213> Ctenocephalides felis

<400> 163
 Met Lys Ile Phe Leu Val Ile Gly Ala Leu Val Ala Leu Tyr Ser Val
 1 5 10 15

Ala Glu Ala Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu
 20 25 30

Gln Ile Gly Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp
 35 40 45

Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Ala Gly Lys
 50 55 60

Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly
 65 70 75 80

Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu
 85 90 95

His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys
 100 105 110

Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala
 115 120 125

Met Ala Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala
 130 135 140

Ile Pro Ile
 145

<210> 164
 <211> 631
 <212> DNA
 <213> Ctenocephalides felis

<400> 164
 tttttttttt ttttttttaa ataacatttt attcctacgc ccacatcgtg acaacttcac 60
 actacaattt aacgactaca ttttgacagg tcttcaaccg acctaacaaa gattttttta 120
 ctattatatt ggtatcgcgt ccattaagtt gtgttctttg gccatcctca cgccgcacgc 180
 cattgctttg gcagcaattt cgcactcgtc ttctcctttg gcctcgtgtg cacattcggg 240
 tgcgattttc ttaacttttt ccattaattc tgaatcgtgt tcgtgtacca tggctgatac 300
 ttcaattccg gcatcaggat ggtattttcc atctttcatc actccaagtt tcttgtaaac 360
 gcaattgatc atgcattttc ctgcttttga atctggtatg ttcttctgca ataatttttc 420
 gatatactct gaagatgctc ctgtttctac agcacaatct ttgcctatct gcaaaagttt 480
 ttcctttgct tcttcttttg tatattttgc agcctctgcc acagaatata aagcaaccag 540
 tgctccaatc accaagaata tcttcatttt gatttcttct actttaaatt tataaataaa 600
 cttttttata attttccaat atagtattta c 631

<210> 165
 <211> 441
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (1)..(441)

<400> 165
 atg aag ata ttc ttg gtg att gga gca ctg gtt gct tta tat tct gtg 48
 Met Lys Ile Phe Leu Val Ile Gly Ala Leu Val Ala Leu Tyr Ser Val
 1 5 10 15
 gca gag gct gca aaa tat acc aaa gaa gaa gca aag gaa aaa ctt ttg 96
 Ala Glu Ala Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu
 20 25 30

Ile Glu Lys Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Ala Gly Lys
 50 55 60

Cys Met Ile Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly
 65 70 75 80

Lys Tyr His Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu
 85 90 95

His Asp Ser Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys
 100 105 110

Asp Ser Glu Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala
 115 120 125

Met Ala Cys Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala
 130 135 140

Ile Pro Ile
 145

<210> 167
 <211> 441
 <212> DNA
 <213> Ctenocephalides felis

<400> 167
 tattggtatc gogtccatta agttgtgttc tttggccatc ctcacgccgc acgccattgc 60
 tttggcagca atttgcact cgttttctcc tttggcctcg ctgtcacatt cggttgcgat 120
 tttcttaact ttttccatta attctgaatc gtgttcgtgt accatggctg atacttcaat 180
 tccggcatca ggatggtatt ttccatcttt catcactcca agtttcttgt aaacgcaatt 240
 gatcatgcat tttcctgctt ttgaatctgg tatgttcttc tgcaataatt tttcgatatc 300
 atctgaagat gctcctgttt ctacagcaca atctttgcct atctgcaaaa gtttttcctt 360
 tgcttcttct ttggtatatt ttgcagcctc tgccacagaa tataaagcaa ccagtgtctc 420
 aatcaccaag aatatcttca t 441

<210> 168
 <211> 384
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (1)..(384)

Table 1. Demographic characteristics of the study population	
Age (years)	Mean (SD)
Male	55.2 (10.5)
Female	56.8 (11.2)
Education (years)	Mean (SD)
Male	12.5 (2.1)
Female	12.8 (2.3)
Marital status	
Married	78%
Single	22%
Occupation	
Professional	35%
Managerial	25%
Skilled	20%
Unskilled	20%
Retired	10%
Income (USD/month)	Mean (SD)
Male	1,200 (300)
Female	1,150 (280)
Health status	
Good	65%
Fair	25%
Poor	10%
Smoking status	
Smoker	30%
Non-smoker	70%
Alcohol consumption	
Regular	15%
Occasional	25%
Never	60%
Exercise frequency	
Regular	40%
Occasional	30%
Never	30%
Stress level	
High	20%
Medium	40%
Low	40%

aaa gat tgt gct gta gaa aca gga gca tct tca gat gat atc gaa aaa 96
Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp Ile Glu Lys
20 25 30

aat tgc gtt tac aag aaa ctt gga gtg atg aaa gat gga aaa tac cat 192
Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly Lys Tyr His
50 55 60

cct gat gcc gga att gaa gta tca gcc atg gta cac gaa cac gat tca 240
Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu His Asp Ser
65 70 75 80

gaa tta atg gaa aaa gtt aag aaa atc gca acc gaa tgt gac agc gag 288
Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys Asp Ser Glu
85 90 95

gcc aaa gga gaa gac gag tgc gaa att gct gcc aaa gca atg gcg tgc 336
Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala Met Ala Cys
100 105 110

ggc gtg agg atg gcc aaa gaa cac aac tta atg gac gcg ata cca ata 384
Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala Ile Pro Ile
115 120 125

<211> 128

<213> Ctenocephalides felis

Ala Lys Tyr Thr Lys Glu Glu Ala Lys Glu Lys Leu Leu Gln Ile Gly
1 5 10 15

Lys Asp Cys Ala Val Glu Thr Gly Ala Ser Ser Asp Asp Ile Glu Lys
20 25 30

Leu Leu Gln Lys Asn Ile Pro Asp Ser Lys Ala Gly Lys Cys Met Ile
35 40 45

Asn Cys Val Tyr Lys Lys Leu Gly Val Met Lys Asp Gly Lys Tyr His
50 55 60

Pro Asp Ala Gly Ile Glu Val Ser Ala Met Val His Glu His Asp Ser
65 70 75 80

Glu Leu Met Glu Lys Val Lys Lys Ile Ala Thr Glu Cys Asp Ser Glu
85 90 95

Ala Lys Gly Glu Asp Glu Cys Glu Ile Ala Ala Lys Ala Met Ala Cys
100 105 110

Gly Val Arg Met Ala Lys Glu His Asn Leu Met Asp Ala Ile Pro Ile
115 120 125

<210> 170

<211> 384

<212> DNA

<213> Ctenocephalides felis

<400> 170

tattggtatc gcgccatta agttgtgttc tttggccatc ctcacgcgc acgccattgc 60
tttggcagca atttcgact cgtcttctcc tttggcctcg ctgtcacatt cggttgcat 120
tttcttaact tttccatta attctgaatc gtgttcgtgt accatggtg atacttcaat 180
tcggcatca ggatggtatt ttccatcttt catcactcca agtttcttgt aaacgcaatt 240
gatcatgcat tttcctgctt ttgaatctgg tatgttcttc tgcaataatt tttogatatc 300
atctgaagat gctcctgttt ctacagcaca atctttgcct atctgcaaaa gtttttcctt 360
tgcttcttct ttggtatatt ttgc 384

<210> 171

<211> 133

<212> DNA

<213> Ctenocephalides felis

<400> 171

ctgtangtga agaattatta ggcagagtag ttgatgcttt aggaaatgcc attgatggca 60
aaggtgcttt acaaagcaaa accagattcc gtgtaggaac taaagctccc ggtatcattc 120
cacgtgtctc tgt 133

<210> 172

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 172

gctgtaaatt gggcggtctt tgccgagcgt gttccacctg cccaaaaacc caatttaattg 60
gccttcaaag taaaaagtga cggatatatg aggaggggtg cggcgaatcc ggaaaatcca 120
ccagcttttag attggaactt ttataagaag tttgtgagtg tgccctggaat ggtagccgaa 180
tttcaaaaac aatgcgagtc tctgaaagtc ccatatccag ccgataatta cacttctaaa 240
gtcgtatgaac aagaacggca agtcaaggct gaaatagaaa ccttcaaaaa ggagtctaatt 300
gatcgtatta caaaatatca agctgatatg gaaaggctta aggccttggt gccatatgaa 360
agcatgacgt tggaagactt ccatgatgca catcctgact tggccttgga tgctgttaac 420
aaaccaacgt tctggcctna cacttcagag gaacaattgg gataccaatc caaagatcca 480
gtagaagctc cttctcat 498

<210> 173

<211> 557

<212> DNA

<213> Ctenocephalides felis

<400> 173

tccaaaaata ttcttatggt agccaatgag gttggacgta aaccaccaac tttccaagat 60
gcagctaaat taacaaatgc tgtattgaat tcaggttatg atttcgcac cggaaaaata 120
atttacaata aatttaaact tggtgtctcc tacagttctg ctgaattacc attgttttagc 180
ctgggagctg ttgagtctgc cccaaaattg ggtgtatacg attccttaga tgctgatgtc 240
atccaaagct acttggaatt ttcaatggct tcattattat tctacacaat gaaggaagga 300
gcttgctcgg agcagtcac ccgatgact gctatggaca atgctagcaa gaatgcagga 360
gaaatgattg acaaattgac attaacattc aacagaacta gacaggctgt catcaccaga 420
gaacttattg aaattatttc tggagctgct tctttggatt aaatttcata cnaatatttt 480
aatatgtggc ttcattctaag tagctcaatt tattacaata tctttaatac tttggttatt 540
tttaatttga atcttgg 557

<210> 174

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 174

aatcaattat ttattgacta tataaataat atacagatgt tagttaaaat tgcatacaac 60
atgaacattt cattttcttc tatttttgac aaagtttatt ttaaacaggt gttgaaataa 120
tttcagtgt cagctttact ttactggcaa cactcatatc aacataacga tctccaattg 180
atacgaccat tccaccaag attgagggat taactttaag ggtagtaat aagttttctt 240
tgggttttaa gaatcctctt aaagtgttt caagttgttt ttgttgattc tcatctaaag 300
gtttagctgt tgtaacttca catggaacct ctccacgatg agcagacatc ataactttat 360
aagcgttgat aacaccttcc agttttattt aacgtccatt ctgagcaagt aactccagca 420
agttggatgt agctggagcc atttgcagct tgctgctggc ttccttcaat gcatttgatt 480
taatggagcg cttgaaag 498

<210> 175
 <211> 236
 <212> DNA
 <213> Ctenocephalides felis

<400> 175
 tttttttttt tttttttttt ttttttttgg naaattttctc tagangaaag aggnnttaaa 60
 acagcaaata cataagattg aataatagat acagcanttt ntaaaattaa taaaattaat 120
 tgagagaaaa ttaaaattca aattaatcat atagataggg agtttcctgt attgccaagt 180
 aaagttagaa ttaaattgtcc agcaattatn tttgctgaga gtcggatggc taaagt 236

<210> 176
 <211> 161
 <212> DNA
 <213> Ctenocephalides felis

<400> 176
 atcttgtcct tcctgggtcac ggaagtattc agntacagtt aatccagtca aagcgacacg 60
 ggcacggggcg cctggggggtt cgttcacatctg tccgtagaca agagctacct tggaggtctt 120
 gtctttcaag gaaatgacac caccttcaat catttcattg t 161

<210> 177
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 177
 gacangttat gttattttatt tcactctgatt ttatcacata aaaacaaaaa taagtagcat 60
 ggatttcata ctttttaatta taaaatgcag tacagtttaa aatttgtcaa aaagacagtg 120
 ttacttatit aataatacat gaaattatgc aacttacatt ttcatttttg ataacgtatt 180
 tctaattcaa tactcactta ttttattaaa ttatgcatta aaagtagcta aaaagtcagc 240
 tacaattttc ttttaattggg catcagatgc ttcactaatc gttccttcct tggcaatggg 300
 ttgcaaaagg gatgaatggg tggctttgat gtgagcgta aattcctttt caaatgctgt 360
 gatcttgggt ggggtccattt tgtccaagtg tcctcggaca ccacagtaga taattgcaac 420
 ttgttcttca atagccattg ggacatattg ccttgcttca ataattcagt caaacgaaca 480
 cctctgttaa caattgtgtg tgggtgatcaa gactgaccga attggcaaaa gcagcaccta 540
 cgatttgac 549

<210> 178
 <211> 400
 <212> DNA
 <213> Ctenocephalides felis

<400> 178
 gatncttgaa agtccgaaaa ttattaatat cattaattaa aatggaccag ggaaaagcac 60

cagttcgcgt ttcacctctg atcaaattcg gaagggtggag ttttctcgtt gtcggaatat 120
 tatatggagc agctcaccaa agcaggctgg caaaacgcga agtaggaatt agagaagtcg 180
 aagctaaaca taaagcaatt cgggatgcaa aattagctga ggaaaagaaa cgagctcaag 240
 aagaggaaaa caaatacttc gcttcacttt aaacagatta gcattattaa ataggaaatg 300
 cagtaacatt caccataagg cattagatgt gctctgtaaa ttattcggat tttatgtgaa 360
 ataaaaagtt attatacata caaaaaaaaaa aaaaaaaaaa 400

<210> 179

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 179

atcagccact gcttctgatg ctgccctct tcaatatctt gctccatact ctggatgtgc 60
 tatgggtgaa ttcttccgtg acaatggaaa acatgctttg atcatctatg atgatttatc 120
 caaacaagct gttgcttata gtcaaatgtc tctattgtta cgtcgtccac caggctcgtga 180
 ggcttatcca ggtgatgtct tctaccttca ctacagtcta cttgaacgtg ccgctaaaat 240
 gtctgaagct catggagggt gctctttgac tgccttgcca gttattgaaa cacaagctgg 300
 tgacgtatca gcttatattc caactaatgt catttccatt actgatggtc aaatcttctt 360
 ggaaactgaa ttgttctaca agggatttcg accagccatc aatgtaggtt tatctgtatc 420
 tcgtgtaggt tctgctgcac aaaccaaagc catgaaacag gttgccggtc catgaaactg 480
 gaatagctca tatcgtgagg tggctgtttt gccaatcgg ctagatcttg atgcancacc 540
 aacaatggt 549

<210> 180

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 180

gttaatatag gattcgttgt ttctagaacc acaacaaatt aaaacacacc aagatgttct 60
 cagcagcaaa attcatcgcc ccagtcgcc aatccgcatt tgtcaatgga tcaaaggcat 120
 atctgcgacc aatctcaagt gcagtattga ctcaaagctc tactatcaat gtattacctg 180
 cagccgctca atctagcatt ttaccacaag ttcgttgtct gcaaactaca gcagtaacga 240
 aagacattga ttcagcagct aaatttattg gtgctggagc agccaccgta ggagtagcag 300
 gatcaggagc tgggtattggt tcagtctttg gatcattaat cattgggtat gcacgtaatc 360
 catcccttaa acaacaacta ttctcatatg ccattcttgg atttgattg tcagaagcta 420
 tgggactttt ctgcttatga tggctttctt actgtattcg cattctaatt tggttttcat 480
 ttgcccggaag agggctctaga agagtgcna cgtatcacca ggactgtatt aatcattcaa 540
 atccattant 550

<210> 181

<211> 498

<212> DNA

<213> Ctenocephalides felis

<212> DNA

<213> Ctenocephalides felis

<400> 184

```
aattcttggc tataagttcg ttgcatgttt tgcaagtgat ttgtttattg catttattcc 60
cgtggcatat ttacatgaa tcagagtttg cattacaatc gttaccctga tctgatttgc 120
atcctcgagt aatgacacct ttttcaattt ttgaatagca gtcgtccttt ggattcatac 180
aaactttggc cttcgtcttt cctgcatctt tgaaacattc gtttcttagt tctggaagtt 240
tttgaacgtt acaaccgat ttctcgcaac acattttttc tcggttagtc ggtcacaac 300
tttctttaac cgt 313
```

<210> 185

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 185

```
tatttgatct aaaagcagat aaacactttc tctgtttttg actgcttctt tatcggcctc 60
ttgtcctaatt cttagtaaac ttgatgatgt tagtgctaaa aattccttca tcctatcttc 120
aatatcacc cgtccacaag tagtaaacaa agcaccaaaa atattattaa tggctaaagc 180
catacaatgc atattgttag tatggccttc caaacttgct cgggtanaaaag attgatoget 240
tcttgctaatt tttggaatag aaacagctac aaaaaccatc aataagcata ctaacaaatg 300
ttcatcctcc tcgtgttctg acttctgctg cctcaaagca tttgctanag ttggatctac 360
tttacaagtc aaacctgctg cggatgacat ctcaagaaac aattttcatt gggctctccac 420
ttggcaatga tgtttaatgt ccttgatan aacttataaa aatgggtatac gctgttctaa 480
cacgtctact anagatct 498
```

<210> 186

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 186

```
aaaacttcaa agaacattcc atccaatgga ttttcaaaca ttctcatcat acggtagttt 60
gatataggaa aattaacaaa tacaataaca atatattaaa ctattcatat tagttatact 120
atttatttct taatccacaa gttcagagac ttcagtaatt gtagcatctg ctaacatgcc 180
ttttttgtca ccagttatta catgaccaac aataaaagct ttttgctttt caagctcata 240
aatctcttta atatatcctt ctgcatctgc ttttggtaaa gctattaata ggcctcctga 300
agtttctggc aaatatcctt ctgctagctt aaacattttg ctgaagattt tggcaacttc 360
ggaacatttg taaaaaactg gtagtttatt caatacaaat gaaacattat ttttctgatt 420
ctgggccaaa ttatcagcat gaccgagaat tccaaagcct gtgacatcag tagcatcatg 480
agcattatat ttatgcaa 498
```

<210> 187

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 187

```
cattcagcaa aggaccggtg ccttctggca gtggtattga tccacgagca atagttctaa 60
cattttctgc agaacagcaa ctaccagaac cgctacctcc attggaacca cgaggagcta 120
atatgtattc tacttcttga cctaaatcta ggtttgatgt gtcgccttca aaattgctga 180
aatggaaaaa cacttcttta tcatgcgaaa tggctctgat aaaaccgaaa ccatccttca 240
aggetgctac aaatccttgg cacaactggc cgttgctcaa agactgacgt ccatttttgg 300
agacaccatt gcgcaatgag gtgcttgatt gtgaagttga actactgctg cttgacgaga 360
cagttgaacc gttaaagctg tggtttgatg actggttact aatggcagtt actacaacat 420
ctgntgctat cagttcttta ttacgcttac ctgactaatg ttgaaatcaa ctttatcacc 480
cattctaggt tgccgatc 498
```

<210> 188

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 188

```
gcacactggt gctgttgtaa cattggaagt tgcaaaacag ggagctatth atcatggtct 60
ggctacatta cttcaacaac cgagtcact tttgaatcaa ggccaagaa gaatgtcgga 120
acgcgatttg ccgtcacgtg ttagtgaga gggctcggtt aaatctattc tgccatctag 180
taaatacagta ccagcactgc accatggtgg ttcttcgatg caggaaatgt cagtgcacatc 240
agctaattta aaatctcata gcaccataa cttaacacaa aatacaaac cacagcaaga 300
tcaagggttt tatcaaaacc taagtgtata tagaggaaat tcatcacagc caaatttaga 360
tcgtggatca ggttttaagg cccacagaa tatggttcaa caaatgtgc atcagagttc 420
taggcccagct tcagcatact ttcctaacca atctaggtgc caatcaaact tcaaccaacc 480
tgttctaata ttagatctca aagcactaaa gatattgaaa cttttgcgtg aaatcttgnc 540
caacagtta 549
```

<210> 189

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 189

```
gacaacccta tcagtccagc gcagagttta tataaatagg gatgaaaata ggcaagttgc 60
ctccgtgatg caccattctg atctgaataa tttgttgaga gttggcagtt tgatattctt 120
aaatgtcggc caattgctgc cgcacagct gcagtcgttc cacacgccga attacatcta 180
tccgattggg tatcagattg tcagatttta ctggctgatg aggaggccga ataaacgggtg 240
cagatatatt tgttcaatag ctgatgttgc tggacgtcca gaatttcgag tacgcgttca 300
agaacctcaa caggatgata ttgaactaag agatgctaca ccaagggctg tttggaatcg 360
aattctggag ccattggccg ctatgagaag ggaattgggc gattcagttc gtctgtttcc 420
caagtacgtc actggtgaag atttgtttgg acttactgag ccagctgttg ttcgagtact 480
cgaagtttac caggaattga gacattaacc gatatcgctt caagtatgga aggaccctt 540
```

attgagctc

549

<210> 190
<211> 550
<212> DNA
<213> Ctenocephalides felis

<400> 190
gctgtacgca gttatggnta ttgacacatt accatccatt aggctctttg tacgancacc 60
tgaacagaac aaccttgact cataaccaa tggcacatat ttgtctttca attgcagntg 120
gattggttca cttacattca gaaatttttg gaacagaggg cgaaggtaaa ccagctatgg 180
ctcatcgtga tatcaaatca aagaatattc ttgtgagagt aaatggaaca tgtgttatag 240
ctgatttttg tttagcagtt acacatacac aatctacagg agctctagat gttgcatcta 300
atccaagagt tggaactaga cggatatatg ctctgaggt tcttgatgaa agcatcaaca 360
tgcaatgctt cgaagccttc aggcgcgccc atatctacgc totgggtctt gtctatggga 420
ggtcgctaac agaactcttt cgaatggcat tgtgaagaat taggccacct tactacgacg 480
tcgtgccttc tgatccaagc ttgaggatat gcgcaaagt tctgcgtgcc acacagacca 540
gtacacctac 550

<210> 191
<211> 492
<212> DNA
<213> Ctenocephalides felis

<400> 191
gcatgtggtg acatgtttca actgctgcaa ggacattcag cagaaacttc tggaggtctt 60
ttgatctgcc tcccaagaga acaggtgca gcttattgca aagacattga gaaacaagaa 120
ggttaccaag cttggatcat tggaattggt gaaaaaggaa atcgcacagc aagaataatt 180
gacaaaccta gagttattga agttccagca aaagattaga atgataatga tatgattatt 240
taattacaga atgaaataaa ggggtgatgt ctgtgtcaac attatgctag ttaaacaatg 300
gcatctcatt cctgctattt gcaatgcttc aatatttttt tgaaacaaat tgttctatta 360
atgcaaattg agattttaag aatatatata gataagaatt attgttttaa gagtaatttt 420
gaatcatgaa gaaatttctt gatttttcaa ttcttaataa agtcaaaagt aaaaaaaaaa 480
aaaaaaaaaa aa 492

<210> 192
<211> 479
<212> DNA
<213> Ctenocephalides felis

<400> 192
tttttttttt ttgggaagtt caattttatt tatgaatata gtatttagaa cttcatagca 60
tgtggatatt gggaagattt caaaccaaac atagctgaca aatatgtata caaaagtttg 120
tggctctgggt gcttcttgat tactcctaaa accattttgt ctacaagctt ttggtcattc 180
ttcctttgct cagttgggtt ataagcctct ttcttggcag caaaaatatc accttcctct 240

ttctttgcac gcttgttctt ttgccttttg aaataatcat cattgatgtg ttctggtaat 300
 ttaactccac taacgtctaa togggtagag gtggcaatga catagttttg ggaaatgcga 360
 cgcaatgggc atgcattgat taagaangga cctgtaacaa gtaacaatcc agagtccaac 420
 tgtttaagaa gaactacacg ttttcnntta tgttgtccag ctaaaacaat gcaaatcgt 479

<210> 193

<211> 528

<212> DNA

<213> *Ctenocephalides felis*

<400> 193

agtttctggt tacattcccc aacgttattc ctccagaaat ggttgcagct ttagagagat 60
 gtcttccacc tcgaccagta gttgagattc ctctggtgc tgaagaatgt atgcttattg 120
 acatggaccc agaacaagag gcacgaagac gtagtcataa aaatgcatat gatgaagatg 180
 atgagggagg acctggagca aacagagttc aatgtgccac gagttaaatc gtagtaactt 240
 agggcattgt tttaaagtat tgtctaacac tatttatata attttcctac gatgataaca 300
 tgagttttat gtcattctatc atatttatca tattgatact tggttagggt tttacattgc 360
 acaattattt gtgactttgn aattacacac gatnttatgc tccacngtaa cggatgggac 420
 acccaantgg nctaanggta ccattttttc ntttttagat agacaatctt tattttttgt 480
 atgtttcata gctgagaaat gcctggccta tgtgatattt gttccagt 528

<210> 194

<211> 370

<212> DNA

<213> *Ctenocephalides felis*

<400> 194

ttctgataac aaaaggccct gtggataaag tctccatccc tgttccgtta caatgtgtac 60
 atttgacagg ctttgtgcc aagtcacacc tggaacctct gcatttctga caagtatcta 120
 ctatgttgac attaatatct ttattaactc ctctgtcagc ttgagagaat gttagtttca 180
 tagatacttc ttttgacca ccaaatacaa aactggattc agcaaagtca tcaaacctc 240
 cagtttttaa tctgtcatca ccaaataatt tgtgaaatag ttcttcaggg tcgattgtcg 300
 attgatactt ccaactctgt gagaagcctt gagggcctgc tcccccatg ccgcccactc 360
 gttcagaggt 370

<210> 195

<211> 343

<212> DNA

<213> *Ctenocephalides felis*

<400> 195

aggtggcggc gtcattcgtat tacaaggact ggtctggttc atttctaata cgtttgcaag 60
 ctgttgaagt ttagctaaac tgaaactagt attagctcca gtttgcctta caggattgcc 120
 ttggggagta ggagtcgctg tcggggctcg tgtctgcggt gcagacggtc ctggtgtatg 180
 tgaatgtgga tgcgtgcctg attgaatata aaaatttgta gcagtggaaa ctgcacatga 240

aggcgatgat ccatgccttt gatgtggact cggcagagga tgctgagctg tgggaatact 300
accttgattt gacatcctat gttgtatcac agaactcatc ggt 343

<210> 196
<211> 749
<212> DNA
<213> Ctenocephalides felis

<400> 196
tttttttttt tttttttttt ttttttttag actatagttc tattttattct ttagcatttt 60
ttgatgttac attttttaca taataccaag taaaataatg acttcattca tataataaag 120
ggtttaatac gccgatttaa aaacagacat cttatacaaa attaaaatgg ctgctgntaa 180
attatagaat atctttttag ttaaacaata tctaaatagt acataaaaact ggacattact 240
tocattatat atatagatat atacatatgt atgttaatgt atatatacat aaatacatat 300
agaatcaaac aatatcaca actgttgatt tgaataagtt gctattcata aaattatgtt 360
ttcgcattha gtacattttt tgtatgtgct taagatgtat ataaacacat atttgntaat 420
tagtaaaaat taacataagc ttgagacatt attaggtgct actaaaattg ataaatattt 480
acataaatta aaacaatttc aattccttata tgtgtggnag taacttcaaa atctgnggaa 540
atattgggta aattgggtact ggnctgnaaa taatttacta aacagaaatt atattgactc 600
ctatctggca ttggcttctt aaccatttta aatttaattt acttaatctc ttcagaaata 660
gcttaataag gngagacatc ccagganaat tgggtggataa atattggtaa aagctcaaca 720
ggaacattgn gacctgaatg gctggcaaa 749

<210> 197
<211> 210
<212> DNA
<213> Ctenocephalides felis

<400> 197
ggaagcacct taggctgtgc aggacatgta actgtatagc attttgtgcc cagagccata 60
gggtccgaat tatgacgtaa cggatcatat gcaaaatttg cggggcaata atattggggt 120
cctatactat ttctgtcaca ataataatag ctttgacaat cttttatatt tggataaaat 180
ctcgatgggt acggacattt gaaaccttgt 210

<210> 198
<211> 185
<212> DNA
<213> Ctenocephalides felis

<400> 198
accacgaggt gcaggcgga ttccagttaa atcaaagggt cctaaacgat tggtatcttt 60
ggtcataacc ctttctcctt catagacttg aattgttact gcaggctgat tgtctgcata 120
agtgtgaag gtttgtgttc ttttcatagg aattcttgca ttgcgttcaa taatcttagc 180
cattg 185

<210> 199
 <211> 223
 <212> DNA
 <213> Ctenocephalides felis

<400> 199
 cacggccgag gggttcagag ttgtcagtct taactgtgaa ggaacctcct gcggaagatt 60
 cccaaaggta ttgttcatca tcattgtgct tagatgtgac cgtgacttta tcagcaacga 120
 gataggccga gtagaaacca acaccaaatt gaccaatcat actaatatcg gctccagctt 180
 gtaaggcttc catgaaggct ttagttccag acttogcaat tgt 223

<210> 200
 <211> 465
 <212> DNA
 <213> Ctenocephalides felis

<400> 200
 cgaaagataa ggactccgat tgttctgaga gcgggctttg gggcaatgtg gaggcgcagg 60
 ccgccttcct ggggcctaata atgtgggata agacattacc ctatgatgct gatctcaagt 120
 atgtggatct agatgagttc ctttctgaga atggaatccc tgtggatgga atgggtcaca 180
 gcggtggatt ggggtccatg agtcacttag gtggcttagg aggatctcat aggtctgagg 240
 ctttaggtca ccttttgagt ggtatgccaa cacatctaac aaagattgaa agatcacott 300
 caccttccga atgcatgagc cggatacta tgaatcctgc ttctccagct gattcaacat 360
 tctcaatggc ttcttctggg cgagattttg atcctcgaac acgggctttt tcggatgaag 420
 aactaaagcc tcaacctatg atcaagaaaa gtagaaagca gtttg 465

<210> 201
 <211> 312
 <212> DNA
 <213> Ctenocephalides felis

<400> 201
 attcttggct ataagttcgt tgcattgttt gcaagtgatt tgtttattgc atttattccc 60
 gtggcatatt ttacatgaat cagagtttgc attacaatcg ttacctgat ctgatttgca 120
 tctcagagta atgacacctt tttcaatttt tgaatagcag tcgtcctttg gattcataca 180
 aactttggtc ttctgtctttc ctgcatcttt gaaacattcg tttcttagtt ctggaagttt 240
 ttgaacgtta caaccgatt tctcgcaaca cattttttct cggtttagtgc agtcacaact 300
 ttctttaacc gt 312

<210> 202
 <211> 209
 <212> DNA
 <213> Ctenocephalides felis

ttcttgtatt caacttcaat tttaggtgtt gt

452

<210> 206
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 206
tnnttttttt tttttttttt tttttttttc tgacgttgac acatccattg cttcaccact 60
tcctgacgca tcaccagaac ttaacttacg tttttttgta gggtcttcag acccgtagt 120
agcagattga gaagcctctt gttcatcccc cgggtctttc ttaatactgn aatctacgta 180
tccagtaagc cattcctttg gtgtgttttc atttggctct cegtgtttgt ctagtttgcc 240
tgcggtatc aaagacttct tttgtgatgc cttaggtcct aagccccatt ttctgggata 300
tgtatntcgc tccattatca cacgttttaa tttagcacag actccatggt cgcatgacat 360
cattgttgct gnggtcatta gagcgattgc taatgcaata gcttctccct tagtagtaac 420
aataacaatt tcctgattca tctcgattcc atcttcatac ctcaagacgc cggnaacata 480
acttngacc gnnacaaaca 500

<210> 207
<211> 264
<212> DNA
<213> Ctenocephalides felis

<400> 207
acgtggtaga aattctagaa gttgccaatt tcttctgtcg actagtccga atggtgtgtt 60
ggttacccat tcgtgatcat actggttcag aagataacaa ccgacagtca tgccctccaa 120
aaagatcaat ccaatggctc cgatggagaa aaatcttcct ttacatttgc agctggtttc 180
agtatacaaa tattgacctt ctatatcttc tgattttttt aaaagtgggtt gttcttggtt 240
gccttctgat ggtggttgtg ttgt 264

<210> 208
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 208
atttccttgt gctaattcaa ttgttcgggg atgaagtgcc agctctggaa ccccttgaac 60
aacttcagaa accaaatcag caactctagc ctgacttgtc tgtgaaccag nttgtccagg 120
tgtgttagca gaactttgaa tgataagatt ttggttgga gcaagactct gtccacacat 180
atttctccgt ttatgagatg ctaaatcatt actttgggca aaagctctac cacaaaccat 240
acaagcgtag ggcttttcac ctgtatgtgt cctcatatgt atagctaact tatcagatcg 300
tgcaaactct ctgttacaaa cactgcatac aaatggnttt tctcctgnat gttttctcat 360
atgcaatgna agatctgtag ttcttgata acctttacca cagattttgc aaaaatttgt 420
catttgacca gtatgtctcc gcatatggac ggntaaatta cttcttgact gnaactttta 480
ccacaaacac tgnataat 498

<210> 209
 <211> 470
 <212> DNA
 <213> Ctenocephalides felis

<400> 209
 aatcagatta cagcttattt cacaaaaaat gagaaatnaa gaatccacaa ctaaatacaa 60
 tatgngtaaa caagataaaa atataactat aaacaaaata taaatcaagt taatcttgaa 120
 cataattaaa taaacttttt gtcaaaaact acagtaaaaa taataaaaac atttcatata 180
 aatgtaaaca aaattgatga tcattgataa ttcttgtaa atgtgctttt ttaaagcaaa 240
 tttatttaca tattaacat ctgtgaattt tgataattta tctcgtagca tcatgttttc 300
 tttcttcatt cgctcaagct ctggcggaag accaatattc tcttctcca agtatcctgc 360
 acgtaaggct atttgatttt ctttcatgcg tcgagcatct cgagatcgct tggctgccat 420
 gttattcttt ctctctagc ccaatcttat catccttcaa attatcaggt 470

<210> 210
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 210
 ttnnnnnntt tttttttnnn ntnnttttgg acctgaaaac tatttattat cacatttatt 60
 naattacata atgattacna ctttaacaact attcttaaat tctagtcaga tatcagnat 120
 ataataaata ctttaagcttt tataagaaaa aatgcatcac tagataattt tttcagcct 180
 tattcgatta attttaatgg ctttgtttaa tcaacttctt ctatcgttgg cccttgccct 240
 ccaccaaagc ctccggcttg ctgccacaa gtttggtgct gtgctccact tgaattggct 300
 tgatgtagct tcatcataag cggcgtaaca atctgttgga actctttctc ttttgttca 360
 tattcatggc attctgcttg gggattctga tctatccaag anaatatatc atcacatgcc 420
 ttgcgngctg gttcacatc ttgctgngga agcctgcttc cacatcggcc agagcttggt 480
 ttacttgnaa gcataatcctc 500

<210> 211
 <211> 263
 <212> DNA
 <213> Ctenocephalides felis

<400> 211
 ttcatttcag gcataaattc tgttgttttg tgaccattaa taacatcaac ccttggtaac 60
 atatgaccag gccagtgta gtgccctggt tcatattcaa atttcacagg tgtgctcaca 120
 tgtggagcta aaggaggagc cagagatctg agatgatttc cattagagga tggtagactg 180
 ttttggtctt ggaagtatct tctggcaaac atatggtggt tcttctgagc aacaggaggc 240
 tggcgcgagg atatcgaggc ggt 263

<210> 212
 <211> 244
 <212> DNA
 <213> Ctenocephalides felis

<400> 212
 atggtgcggt gaaagcaaat taccattaaa atatgtatattt cccacacaaa atgggaaaaa 60
 ggaattttgc tccgagacct gcattgcaga attcaggaag gcttatagca agggagcctg 120
 cctacaatgt gataatgtaa tccgaggaaa ctcatctacc agtcgagagt tttgttctac 180
 cttttgtatg aacaaatatt aaaaaaagaa tgataagaat ctcataaatt taccggttac 240
 gagt 244

<210> 213
 <211> 418
 <212> DNA
 <213> Ctenocephalides felis

<400> 213
 atcatcagca aaaccagcag ttttaataatc agttaaatca acaaaatcaa caagtaaattc 60
 atcagcaaaa ccaacaattt aataatcagc tgaatcagca attgaataat caacaaaattc 120
 agcaatataa taatcagaat caacaattaa ataatcagca aaaccagcaa ataaatagta 180
 atcagataaa tcaacaacaa aataatcagc atgttaacac acaacaacaa aatatatctc 240
 aagggaagtaa gcaagtaggc cagggcaatc aaattccaca ggtgcagcaa cagcaggtgc 300
 cgaccatgta gottctgtga atcttaacaa taatattcca cataaatctg gggaaattca 360
 aaacagtgtg tagacagtat acaactcctg agactctcta ttccaagcaa gaccccggt 418

<210> 214
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 214
 aacgtaaaga caaaggtaaa tctcgtttca cagcttatat gctctgggct aaaggaatta 60
 gaaataaaat cgtaaaagaa aatccttcaa ttgatttttc atctatatca aaaaaattag 120
 gtgaactttg ggcaaatgtg cctaattggag agaagtataa ttggcgctga agggctaaac 180
 gtatggctat gaaagtagcg agagatgaag aaataaaaac atctgataat aaagcacaat 240
 ttataaataa aagcaaattc aataagccct cccaattctc cacttcacca acagtttcta 300
 agaaacttga tatagaagat ttagaagtga tgcctaattc ccaacaaaat tctgataatt 360
 taatgttgag ccccaaattc tcagcaatga gcagcggttt atcatctcaa ggcaggtata 420
 aggtaacagg aagttcccca attgacatag ctgcttatct aaagttactt ggcgagaggt 480
 tgagtattat tggnggac 498

<210> 215
 <211> 398
 <212> DNA

<213> Ctenocephalides felis

<400> 215

gccattgcag ccactactga agttgaattc aaagaagcta ccacaattaa ggaatacatt 60
aaggatccca gcaagtttgc tgctgtact gctgccgctc cagctgctgc tgctgcagca 120
cctgctgaat ccaagaaaga agaaaagaaa gaggaatctg agtctgaaga tgatgacatg 180
ggtttcggtc tctttgatta agaacttggt ccacaatatt aacatttttg gaaatccata 240
tttatatgaa tatttacata ttcaagtctg tttgtgatta ttatctgtaa atacttgtct 300
gaactttgcg cagttctgtg gcaatttaca agattttatt tgtaagcata actttgtata 360
ataaaatatg gatgaggata aaaaaaaaaa aaaaaaaaaa 398

<210> 216

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 216

gagccatctt atcaaacata tttaatatata atttataata aatcgtgcaa agttttcatg 60
ttttaattaa aataccgatt gaggtaatac gaagtacaat ggtggataat aaattagcag 120
gattaacaga ggaaaagcta cgtgttttag taaaacaatg taacaaatgc ccgaaatgta 180
atgaaatttg tctagaggat tttcccgttg ttcaatgtag tttgaaccac agactttgca 240
agacgtgctt tttggcttcc ataaatgatc cttgcttcca gtgcactaag ggcagcaaac 300
catccgctaa taaaaagat cggccaaagc agccaaatgc cccagacaat tctttccoga 360
aggtaaactg caaatatgcc agtgacggat gcaaaatctc aaaaaagaag gacaaaatta 420
gatttcacga atcggaatgt gtgtttcaac cacaagaatg tctggaaaat tcaactgttta 480
tttaattgta ctggccggta tttcaacgca tgctaccttt gtgagaacat cattaaatgg 540
aacacatga 549

<210> 217

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 217

caaacgtaca taagaatggg agcgattatt ttaagttcag attaaattgt atatactttt 60
gattcgatgt acgggcgcaa tcatcacact cggagattgc agagagcttc aactgctgca 120
cttctcgaaa acaccaacga aaggttgccg gtggcgagcg actgcagcac aggccttagc 180
gtgcgttcgt ccagctcgaa cccgttgcaa gccagcgga gcaactagtgc tactatgatg 240
gcttcagacc gagtgcccag tccgcctctg caggagggtca acacaccgt agctgagaac 300
tggtgttaca cacaggttaa ggtagttaa ttcagttata tgtggaccat taataacttt 360
agtttttgcc gggaagaaat gggcgaagtg ttaaagtctt caacattctc agcgggcgcg 420
aacgacaaat taaagtgtg tctacgtgta aatccaaaag ggctagatga agaaagtaaa 480
gactcctcta ctgattacta ctgatctgt acaaatctga agtcggccaa ttaattctcg 540
atttaatgc 549

<210> 218
 <211> 547
 <212> DNA
 <213> Ctenocephalides felis

<400> 218
 ttttaacgata cacaacatga cactggcaga atcgctactt atgaagaaat agttgatttg 60
 ccgcagaaaac cagaagtttt acttattgat gttcgtcaac cggaggaatt ggagcaggaa 120
 ggaaaaattc cgacggctat aaacattcca ttacgtgaat tggaaaatgc tctcaagaac 180
 atgtctcctg aagaattcaa aaccaaatc ggaagagata aaccaacatt cgatactgaa 240
 atcatttttta gttgccgttc cggaaaaacga gcaaaggaag ctatggaaac agcattggga 300
 ttgtgtttaca agaaatcaag atactacgaa ggtagctttt tagaatggag cagcaagcag 360
 aagaaacagt gaaattgcag ggtaaatcaa atattttata tgatacacat attattttaca 420
 gatatgatca aactaagtat tcttgnggng ntatatttagc atattgatat tttcttacga 480
 aatgtttctta agatgattta aaaatattgt gaataaattg ttacttttag attnnocaa 540
 taaaata 547

<210> 219
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 219
 gtgatgtcat ttgtgcaaaa gaaacaaact gaatgggaac cggagtgggc tggagatgag 60
 agtataatgg cattaatgaa tgggtggagaa ttattttatt atgaaataga taaatgtgag 120
 tttggaacat catgggatgg aaagccaacc aaaaaaattg ggggaggtcg aaatggaaga 180
 ataagcatat caccatctaa tactacaacc acttttagctt tttatgtacc tgggtgcgca 240
 gctcagccat cgacttgcaa attatttgca tctcctaata tcagtcaacc agtagcttca 300
 aaaagctttt tccaggtga cagggttgat tttttgtgga ataatcgtgg aacaaatcta 360
 cttcttctaa cagcaactga tgttgaccaa actggtgctt catattatgg aaaacaatct 420
 ttgcagtata tgagttgcaa gggtgatact gnttggtcag tgccaaagaa gggctgtcat 480
 gcagttgcat ggagtcctaa gattagagtt tngtgggtac ggcattgcct gtaaaactcan 540
 tatcaatct 549

<210> 220
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 220
 gctntttaga cgttggaatc taaataatta aataatgata ccgaaaatat tattattttag 60
 taactaatat acgaaaaaag tattttttta attaatgaac atgtcagcat cagcaagcag 120
 atcggaattt gcaatcacag aatctaacca acaagaagat gaatgtggac cacaattaat 180
 ttctaagata gagggtaatg gtattacaag tggggatatt aagaagttac aagaagctgg 240
 atactatact gtagaatcaa tagcattcgc accaaaaaag agtcttataa ctataaaagg 300
 aatatccgaa gctaaaagctg ataaactatt agccgaagct gctaagcttg tgcctatggg 360

gtttacaaca gcaacagaat ttcacaaaa acgatcagaa ataattattgt taacaacagg 420
 ttcaaaggag ctatataaac tattgggagg aggtttgaaa ctggatcaat aacggaagtt 480
 tttggtgaat ttctgcaggg aaaacacatt atgcctacat tagctgnaat tgcagtacct 540
 atagatcaa 549

<210> 221
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 221
 cttgaataga ttatttactt tgcctttaa tttcaaagaa gtccctacgc gcaccaagat 60
 gggtagggag gacaaagcca cctggaagtc aaactacttt actaagctcg tccaattggt 120
 ggatgaatac ccaaaatggt ttattgtggg agccgacaat gtgggttcca agcaaatgca 180
 acaaattcgt atgtctttgc gtggaagcgc cgttgtcctt atgggcaaaa acaccatgat 240
 gcgaaaagct atcaaaggct atgttgagaa caaccaggct cttgaaaagc ttcttctca 300
 cattcgcgga aatgtaggat ttgtatttac tcgoggagat cttgttgata ttcttgataa 360
 attgttgaa aacaaagtgc gtgctccagc tcgtgctggt gccattgctc cattgccgtt 420
 attattccag ctcaaaatac tggcttagga cccgaaaaga catctttctt ccaagctctg 480
 ncatccaaca aaatttcaaa aggactattg aatcatcaat gatgtcatat cttaaacct 540
 ggggataaa 549

<210> 222
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 222
 gcgaggcgga nattgtnagt ncttttaagt attaacaatt taattaagtt tttatttaatt 60
 ttctgttattt ttttttaagt ttttacgtga aagactttga ggagtgattg nttatcagca 120
 accaacanaa aatgggggtcc gagatgaaaa gtacatgcta caaatgcaat cgcgtangac 180
 actttgccag agaattgcacc caaggaggcg gaggtatggg aggtggccgg gaccgcatg 240
 gcggtcacag ggactcgggc cgcgtgcgtg agaaatgcta caagtgtaat agatttggcc 300
 actttgccag agactgcaag gaggaggctg accgatgcta cagatgcaat ggcaactggac 360
 acattgctcg cgcttgtctg caaagcccag atgaccatct gttacaactg taacaagcca 420
 ggacacattg cgaggaattg tctgagagcc gtggtntgac tccagntagg tcaaccaacg 480
 tgttcaactg cacaaaactg gtcataattt cgtactgcca gaaatgctag acttgatatg 540
 tgtggaaagc 550

<210> 223
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 223

<210> 226
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 226
 tgaaagagat gcaggcattg tgggttgatc ctcggaaga ataaaaagt taatttcagg 60
 agaagaagt gaaaggatag ctaacgaaac taaagttgag gtgttgact acggtcaatt 120
 ttcaatatgg ccagggtgta tagactctca tgtgcacgtc aacgaaccag gaagagaatc 180
 ctgggaagga tacaccacag ctactaaagc agcagcttgg ggcggaatta ccacaatagt 240
 agacatgcct ttgaattcca tcccacctac aactactgta gagaatttga gaacaaaagt 300
 gaattcagcc tgtggtaaaa cgcattgtga tgtcgctttc tggggaggcg tgattcctgg 360
 caatgcgcac gaattgttgc cacttatcaa cgccggagta agaggattca aatgttttac 420
 aagtgaagt ggtgtcgatg agtttccaca ggttactaaa aatgatctgg aaatggctct 480
 aaaagagctc cagaaagc 498

<210> 227
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 227
 cagccgttat agcggttgaa actgataata tccaaatgtt gtccaacttt atcttcatcg 60
 actgccctcg acaatgctat tgttactggc cgtgaaacat cttaaacttt cacgtgatca 120
 acgatagccg aaaaaataatc atccgatgcc gtaatctgag ttctaggttc atttgcaatg 180
 gaccacatta tcaactcctgg gcgattctta tcacggcgaa ttagctcgct taacgacatc 240
 ttgtgcttag caagcaattt tgaattgtaa ttctctgtat ctacacttgg acattcattg 300
 attatcatga tgccgttttt gtcggccagg tccataactt cttccgaata aggataatgt 360
 gatgttctat atgagttggc cccaatccat tttattaagt tgtaatcttt tgcaataata 420
 gccaaatoga gaccttttca cgtatgtcag agtcttcatg tctacccaaa cctcttagat 480
 ataatttcct gtgattaa 498

<210> 228
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 228
 atgtccttga agtcctcgag ccgatgcaag ggtcccatcc agaccgcata ttctccggc 60
 aatctcggaa caaaaagcgt gcttcgacct gttccgacct caacggcccc gaacagatcg 120
 ggttccttag cgccaaacat gtattggaag taggattcct gtttaaaaat gtagcccaca 180
 tccgtgtcgt tccagctgac ctcttcacct ccttgcagaa ggataatgga tttttttaag 240
 gaacaacttt gtgccgataa agcatcgcac accttcttcc tgttctcggc gaataaactc 300
 atcggaaactt tcagcgtttt tgggtccatg gagaagacc gctgctgacc cgatccggtg 360
 gagcacttgc atgttgatc tgccattatt cttttaaaact ataactactaa gcgatttaca 420
 caatttaatt aacaataatt actaaaaaaa tttaattaaa cacatataac caaaaatttt 480

ctgtcactga acataagt

498

<210> 229

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 229

aacagttgca tgaactttgc ccttcaacgt cattcctaag tatggtgttt ctttattctt 60
gtgttggatt atgtcttttag tgaccttaaa ttcttctctg ggatcccaaa ttactaaatc 120
agcatccaag ccttctttga tttgtccttt tatgccatcc agtccagtta atcgagcggc 180
cgcccgggca ggtacttgag ttcccatcc aatcaatgtt actgcatcac ctttcttgat 240
aatatcagct tttcccaaag gaactgtgaa atcatcgaca ggaacttctt ctacagctgc 300
tctgtaaagc gtttttgggt ccagtagcaa acatggatct ttttctctga tcatggataa 360
tagaagacct ttggccatat ttggacctct tggtagca atcttcaatc ctggagtatg 420
tgcaaaatat gcctcanggc tttgggaatg ataacaagcc ccgtgtccga ctgcatacaa 480
ngtgctcgca ctgttaaa 498

<210> 230

<211> 237

<212> DNA

<213> Ctenocephalides felis

<400> 230

ctgctgctgc accgggaaca cccctgata ctggcgtatc acaaaattga gaattatgtt 60
ggttcaccaa ttgttttaact tctttggcaa ctgctggatc gattgtgctg gaatctaaga 120
acaatgtatc ttttttggca gatgccacca ttcctttgta acagtctaact actatggcgt 180
tgtttggcaa cattgtgacc acaaagtcgg attttttggc aacttcggca gccgagg 237

<210> 231

<211> 171

<212> DNA

<213> Ctenocephalides felis

<400> 231

tgcttgaga aagtgcagtt ggaaaaagtt ctttgggtgtt aagatttgct aaggggcagt 60
ttcatgaata tcaagagtct actataggtg ctgcgttttt aactcaaact gtgtgtctgg 120
atgacacaac ggtaaattt gaaatttggg atacggctgg acaagaaagg t 171

<210> 232

<211> 315

<212> DNA

<213> Ctenocephalides felis

<400> 232

tgatagagtg catggccaat atgaatatcc aaaaatatta taggcctctc attacgatca 60
tcatattgcc caaaagtggg tccgtgggtct cgtcgatgaa aaaattatgg tccacaaaat 120
gatcaaaatc tttcacgccc atttgtctga ccagctctgg atctcgtatc agcaatacag 180
gttttaaaac ttcatagaaa cctgaaaatc tgctatcagg aaaattctca taagctcttc 240
cgtaggtata aatctgattt tccaactgga aaaagtttct ccaggtgctt ccaaggatcg 300
gcacaggttt caggt 315

<210> 233

<211> 247

<212> DNA

<213> Ctenocephalides felis

<400> 233

agaactactt gcatcttttt taggatgtct tttgccacac attctgcgga acatcacttg 60
agcaataaat attcataatt ttgogaattc cttgatttta aacaagcgca gacataatgt 120
atgtatatat gtatatatat atatatatat attgaatggg agagtcttgg atttgtgtat 180
attttgtaga gtttcgaaca agaatccaaa aataatacaa aaaaaaaaaa aaaaaaaaaa 240
aaaaaaaa 247

<210> 234

<211> 330

<212> DNA

<213> Ctenocephalides felis

<400> 234

tggtgaagaa tttgccggtc gcctagccaa agaaggaata cgatataaat taaagggaat 60
ggtagcagac ccagaagaat gtgatatgga agaattgggt agcatgaagt ctataccaaa 120
ttcacttgcg gtgttctgct tagctacgta tggtgaagga gatccaacag ataacgccat 180
ggagttcttc gaatggatcc aaaacggtga cgccgatctc acgggtctta attatgccgt 240
ttttggactt ggaaataaaa cctacgaaca ttacaatgaa gttgcaattt atgttgataa 300
acgattggaa gagttggggag caactagagt 330

<210> 235

<211> 417

<212> DNA

<213> Ctenocephalides felis

<400> 235

aattaaatgc aattatatca attctggcat aaatccaagg cactattttg actattttct 60
aattgcaaaa tatcaagtgt ttaataatgc aaaattttct taacagcatc aaagcaacgc 120
catttgctcg gtagataaaa cggttcaaa acatgagggg atggtgtatc gtggccggtc 180
actctttgaa taggagcctc gagatgcaaa aagcattcct cctgaatgga agcagccagt 240
tcagccccaa agcctccagt gtatggagct tcatgtgcaa taatgcaacg accagtcttc 300
tttactgaat tacaacacgt atcataatcc catggtagta tcgaaacaag atcgataaact 360

tcacaattag catcaagttt ttcttttaca atctcagcta cttctcgtaa aacatgt 417

<210> 236

<211> 112

<212> DNA

<213> Ctenocephalides felis

<400> 236

ctggtttgca agtcattcca ctgggacatg tttccaatgt tgtttctaag aaatcagngc 60
caatcgcaat gcaaagggtt gctgtctcac aatcctggca ctttatttct cc 112

<210> 237

<211> 325

<212> DNA

<213> Ctenocephalides felis

<400> 237

actgtagtct cgtgaaatth gtttattaaa atccgaaagt aatggataat tcaaaccacc 60
taagccgcct acttttctat ccatgttaat ccatgctaag tggctaaaat gtgaatccgt 120
tgagcatcca acaacctcag caccgatttc ccgaaactgg cctattgcat cactataagc 180
acgaatctcc gttggacaga caaaagtaaa atctaagggg tagaagaaca ataccataa 240
tttgccctta taatctgtta agctgatctt cttaaaatca ccattgacaa ctgccatacc 300
ttcaaaatga ggggctggac tttgt 325

<210> 238

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 238

tgaagccctn tgtgccggat gcgaggactg tgcaacggct taggtcctgc catgtttggt 60
gttatatttt atctttttca tgttgatttg aatgaagatc atcttggaat taagatagaa 120
agaaatgaaa ctgctgggtgc agatgattat atacaattag ttcttgggoc tccatttggt 180
tttggagcat tgcttgtaat atgtgcactt ttagtagcag ttttcatacc agaagagcac 240
aaagatatata gccgacgttc ttctggtggt tctttagata cacattttga aattgaacgt 300
ggcagaaaag ttgcaagtcc tctaccacca ttgattcata ccgattctgc acagctataa 360
acatcatata ccatcaccac ctatgcaata caattttatt aataatgaat aattaattta 420
aaactagttt gaaacccaat ggtaaatgat aatgaaataa ccagatacaa attacagata 480
ttttaaatga gatgtcatac 500

<210> 239

<211> 252

<212> DNA

<213> Ctenocephalides felis

<400> 239

acgatacact catcccat tttt tatacagaaa aacttgataa aatagcgaag gctaataatg 60
gccatttagc tcttggaaga ctaacttggg ccgactttgt tttcgccgga gttatcgaat 120
atatgagttt catatctgga acagatttcc ttggaaaata tgcaggattc aagagtgtct 180
ttaataatgt tgcaaatttg ccgaacgtga aggaatggat cgccaagagg ccaaaaactg 240
atttgtaatt gt 252

<210> 240

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 240

tttttttttt tttttttttt ttttttttta ttcaactcat caattacaac atcaacaata 60
gtattaacat cagccatagc accattacca gtatcacgcg acaccaaagt cttagaaatg 120
caaggcactt ntatataccc ccaatctttt aaagttttta cttgtggagc gggttatggg 180
tgatcccaca ttctcgtatt cattgctgga caaaacagga ggggcttgga tgtgttccag 240
gctcgaactg tgcaggttag gaggttgca cataaaccat ttgatatttt agccaaagtg 300
ttggcgctcca acggtgcaat gcacatgatg tctgccatt tagttaaatc gatgtgtaaa 360
acagggtcac cacgtttgtt ccaaaatttc cattcatggg catctgtgta tttttgacg 420
gtttggggta tttctgattg gtcgaagaag tgttttgcatt attctgttac tataactgaa 480
tttctatatg tatattggag 500

<210> 241

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 241

aattttattg tatttatata cagataaaaa ttgatatcaa gttagataac aaaatataaa 60
atttaaaaaat caaaacatat ttataaattt ttttggctct atttctagaa tttattcagc 120
attagaaaca ttttgaataa ttttcttgaa tattgtgata cctcgaagga aagtttctgt 180
atctaaatat tcatcatggg catgcagcaa tactggcgtg ttattcatgg gagaaaaacc 240
aaaagccggc agtccaattt ctcttatata tctgctatct gttgcagctg gaaaaacttg 300
tggttcaaga acaagtocca tttcatcagt agctctttta aatgctgtcc aaaatttatt 360
gctttcattc agttcagtgt ttgctatcag tgggtctttt tgtcaaattc tttttcaaca 420
tccttgccag cttctttgca ccattttcgt atcttttctt ccaattcctt gtggctaagg 480
atgggtgtaac acgtatat 498

<210> 242

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

[illegible]

<210> 243

<212> DNA

<400> 243

<210> 244

<211> 535

<212> DNA

<400> 244

<210> 245

<211> 497

<212> DNA

<400> 248

```
ctnagctcga ataatttcag tattatcacc caaaagttaa tttaaaatgc cgacatacaa 60
gttgacatac ttcaacgtta aggcctttggc tgaaccattg cgcttggtgt tgtcttatgg 120
aggagccgat tttgaagacg tcaggtttgga gaaggaaaac tggccagcag ttaaaaacac 180
attcccatc ggacaagtcc cagttttgga aatcgacggt aaacaaataa accaaagctt 240
ggcaattgct cggatatctg gcaaacaatt caacttgga ggcaaagatg ccttagaaga 300
tttggaatt gatgccatcg ttgattcaat gaacgatttc agactaaagg ctgctgtcgt 360
tatttatgaa caagatgaag cagtgaagc caagaaagtc gaacaattga ccaaagaagt 420
agtaccatc tactttgaaa aattcgagc tatcgccaaa aagacaatgg catttagctt 480
tggaattt ncctgggcag attcgtgctg ctgtcaattc gaacatggac ttatggccga 540
ctgttattc
```

<210> 249

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 249

```
ttattatttt gttatatgtt cttgatgatt cttttggtat tctggttctt tctgganccg 60
tgatgtttac gtaatatata ccaaaacgct ctgtgaatcc acgaagccat tcaaaattgt 120
ctataatgct ccatagggca tagcctttta cattgcagtt atcaataatt atggctttga 180
gcatttcatt caagtaacta caaatgtaat gaactcnatc atgatcatcc aattgaccat 240
gatctgagta tccgttttcg gtaactatta tttcaattcc aggtattca ttttgaaccc 300
attttaaaag ttttcgaaat ccttctggaa caacttttaa ccaagatgat gctgcactgg 360
gccatgaggg gtccgattct aattttactt totgatcagt ataccaggtg ttcggctttc 420
ctgaaattgc attggatgct aggcgagatg tataatgggt taatccaaga aaatcagcaa 480
gtgcctttta tatgatca
```

<210> 250

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 250

```
ttccgatctt tngtttatga caccatatca tctcgagaag ttacaggaac tgcaagatat 60
gatatgatgc agttgttaat tcaagctaaa aaaggaactc ttcaagacga tgatttaggg 120
gtaactgctg cacgaaataa agaattaaca ggcgatgata taacatccca agctttantt 180
ttcctcataa ctggagtaat aacttccact tcaacaatgg gtttcggggc ctatgaaata 240
gcaaacaacg aagaaattca gaaaaaattg atagaggaag tagatgaggt tagaaagaag 300
cataaagggtg aattatotta tgagataatt gataagatgg attatttagg cagagtaata 360
tcagaaactt tgccgaaatg gccgccggga attattgcta ggaattgtgt gcaaccttat 420
acaatcacgg ataataaaaa tagaatcaca tttaattgcg atccaggagc tgtnatatat 480
gttcccacaa tagccatt
```

<210> 251
 <211> 175
 <212> DNA
 <213> Ctenocephalides felis

<400> 251
 cattctactt tgaaaaattc gaggctatcg ccaaaaagaa caatggacat ttagctttgg 60
 gaaaattgac ctgggcagat ttcgtgctgg ctgggtcaatt cgaagcatgg aactttatgg 120
 cccgcactga tttattcgcc aacaccccct cattgaaggc tggtatcaac aatgt 175

<210> 252
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 252
 ctttgacctt atatcatttt gacccaagtt ttccgtcacg agcagcgctg ttaactatta 60
 gagcactaaa tcttaagggt gatataaaag aagtaaatct gtttgctaaa gagcaattta 120
 aaccagaatt tttgaagatt aaccacacac attgtgttcc aacattagat gacaatgggt 180
 ttgttccttg ggaaagtcgg gctatagcta cttacttggc ccaggcttat gggggtgaaa 240
 aatacagttc cttgtatcct caagctgcta aagaaaaagc agttgttgat cagagattat 300
 actttgatgc tggagtttta tttcctagaa ttcgagccat ttgctttcct attctatatt 360
 tgggagaaac tacgatttca caagacaaaa aagaccaact aaatgaagca tttggttatc 420
 tagatgggtt tcttgcnaaa caaagtgggt agctggagac aactttaccg tacagataat 480
 gcattctggc ttctgttcta gcatacaagc tgtggttcga tatttcnaat ccctctgtgc 540
 tctgggaag 549

<210> 253
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 253
 atanattaga aaaatgtag caagaccctt actgccacaa aatccaaaac aagccccttc 60
 acattctgaa tttgtgatca gtgaccgtgg gtatggcaaa gattttgtaa aattattaca 120
 tgttaaacga gatggagaaa cacatcatat tagagaattt gaagttggaa ctcatttgaa 180
 acttgcttcg gatgtagatt acctaaaggg tgacaatgct gatatagtag ccacagactc 240
 tcaaaaaaat acagtgtacc ttttggtctaa ccaacatggg gtgaataccc ccgaagaatt 300
 tggcttggtt ttatgcagac actttttgca cacctacccc catgttctag aatgcagtgc 360
 cactgtggag atgtaccctt gggaaagaat taagggtagt ggtcaaccag aaaggcagca 420
 taagcatgct tttattttta acccttcggc agtcagacat tgtgtggtac acagaaaaaa 480
 taogaactcc ggcgtcgaag ttgtttgaag gatctcgtgt ctcaaaacac gcatccgatt 540
 cctggntcg 549

<210> 254

aaaatattgc tgcaaaaatt tgtatcgagcagg tggaggacgg ctactatccg atttcctgga 540
cactagagt 549

<210> 257

<211> 441

<212> DNA

<213> Ctenocephalides felis

<400> 257

catgcaccac tgtggcggtc ttgatgtgaa tcaaattcac tcgttaattc actttgggct 60
ccaaaggccc tcacagtcga caagccagct aacgatgccg caaggtgaga atatgcggga 120
cttcggggtta ttccttcaag acgtttaata ttttttgatg tttttaagta tattcttctc 180
acaaatatga aaactactcc aagaacgccg acagctatca aaaataatgg atttacagtt 240
gccgttaata ttaaagcgcc aactatagtc agtattatct gtgatgaatc aagcagggct 300
ttaggtaaaa attcatcaat agcgcccatg tcttttgaaa atctgttcat aatccgtcct 360
gaagggtttg tatcaaaaaa tcgcatagtt gtttgtaaaa ttcctttgaa catagaatca 420
tgtaatcntt gagaaacccg t 441

<210> 258

<211> 438

<212> DNA

<213> Ctenocephalides felis

<400> 258

aaggcgcat aacacagaac gataatgctt aggatatcaa taaagtaaaa ttaacactaa 60
taatgtcgat tctaataat catcagttcg aaatggacgg atccttgtcg atccttgttg 120
ccaccagat agatgatgtt cctggcccag gcacgacatt ccacgttgat caaacgtccc 180
actgtaggtc ttttgaattg aacagcaact aatggactaa gataatctcg ttggtttctg 240
aatggataat aatatccagc aaatcccatg cttggataca tttcaactgg gcccaaattt 300
tctcgatcaa ctggattttc tctttgacac gaaacccaaa tttgttttct ctcacccggc 360
ttgagacttt gtatgtgatc cttcaattcc ataggcatat cttoagggcag cgtcgccaca 420
tcatacataat aatccggt 438

<210> 259

<211> 323

<212> DNA

<213> Ctenocephalides felis

<400> 259

catcgctgt gactgccacg acttctctgc tttcactgac attgctgtcg ataatacctt 60
tgaccaatgt gtatttgtca gtggcggaag atcttgccaa aacacgtaat ttaggccaca 120
ctttatccag cagatgttgt tggacatcac cgttgctgtc tctaatacgc ctattgaatt 180
cttttccttc taaaatcaga aaatcttctt ggggtttcaa tattccacat ttcgtagcaa 240
tagaccttgc agtgtttata ttatcaccag ttaccatacg aacagttatt cctgcttttt 300
gacatttaog aatagcatca ggt 323

<210> 263
 <211> 344
 <212> DNA
 <213> Ctenocephalides felis

<400> 263
 aacctaataa taagcaattt acatacaaga tcgacacaag tcatgcaacg ggaaatattt 60
 taagaactta taaccgaaaa agtagtgggt tgcgaaatag gccactgtgg gcactcacca 120
 ttgccctgt attcgtcctg gactttgtag aattctgcta attccttacc cgagcacaaa 180
 ggagatcga cttgggtagt ttcgttaaatt ctcgaataat cgacttcgta gcattgtctt 240
 tctttattgt agttgacgac tgggtcgaac ctgtggcccc acaatatttc cgtattaatg 300
 taacttgatc gagcttgtgt ggtctgtcct gtagattcaa tagt 344

<210> 264
 <211> 477
 <212> DNA
 <213> Ctenocephalides felis

<400> 264
 attaatttaa gaatctaatt gacatctttt gttcaacatc tgtgogttcc aaagctttac 60
 aaaaatcatc aaatgagatc atttggtcac cattttgatc agcttctaga atagttcttt 120
 cggcaatgct tgacaattgt tcttcactta tatttgcacc caccatcatg tgtaaaatgg 180
 caagaagttc atcccgagat atcatgtcat cattgtccaa gtcatacatt ttgaatgcaa 240
 atctcaattt ttcttccctg ctgttcaatt tattttcccg attcttctta atgggtctga 300
 aatgtgctaa gacttgcata aactgtaaga aattcaccct gtcacatga ctttgagcaa 360
 aaaatgcatg gacaatccta tcacctaagg gatttattgc gagttcgggt attctcaaaa 420
 aatcatctcg tgaaagagtt ccacagtctc cagcatctag agatgtgaat cttgagt 477

<210> 265
 <211> 377
 <212> DNA
 <213> Ctenocephalides felis

<400> 265
 cnaactttgt cctgttatcc catogatcat gcgtctagca ttggctatgg ctagatttaa 60
 gtccctcttc anaacaaatc cnacaagata ctgagattct ctggaaacaa caactggata 120
 tccattgtgc tcagtnctt tcantaaacc ttcaacatca tccacagtca tcgagtcttg 180
 agtgattaca cttaatgttt cattcctctt gggttgcatg acatctgcag ctaaagatgt 240
 atgtgcaaat tcatctttac tgccaagaat ggatatccat taagctgtat atgggcatca 300
 tatataccct gtctgcaaaa gcatcaccaa cccatttgga agccatagct gctgcoatta 360
 agggcacgat ataacgt 377

<210> 266
 <211> 222
 <212> DNA

<213> Ctenocephalides felis

<400> 266

tttcttttagt ggtgcactgt agatatccac tttgatcagc gcacacttga tctgggctac 60
aggattcctt aaccggatct gctcctatct ccggacaata ctgcatttcg ggtgaactgc 120
acgaattcac gcaactaaat tttacttttt tacatttttg ctggggtttc ggtacaaaat 180
gctatacagt tacatgtcct gcacagccta aggtgcttcc gt 222

<210> 267

<211> 209

<212> DNA

<213> Ctenocephalides felis

<400> 267

cnaaagaggn ttcaggaagc tcttcttcgt cncctgattt tgganccoga gttgggttcaa 60
ccaattcacc aggatcgtga atctaataaa catgaagaac aattcaacaa gcaccatnat 120
nacaagcanc acaaagctga ttatatgaat cacatgagag tcaccgacac ttngngaate 180
atggctgggt cttttgctgt gatagcggg 209

<210> 268

<211> 178

<212> DNA

<213> Ctenocephalides felis

<400> 268

aaccaactag agctaagaaa aaagccagcg atagcataga actgctatgt tccoctccaa 60
ataccactgt tgttttatca tataaaaatg ccatangtat ggagctaata catccaatca 120
ccatcaatat atatatatat atgaagagtc ttttatcctt cctgggtaaa gtttctgt 178

<210> 269

<211> 238

<212> DNA

<213> Ctenocephalides felis

<400> 269

tttgttttac tttatgtgtt atataaaaaa atattatggt tgaacacagg ctgcgaaata 60
tgataaggca ttttaagaatt ttacaattta gattttttta aatccatgaa tatatttggt 120
ctaatacaaaa ttattcattt tacgcttaat tttattgggt gaactaatag atagatagat 180
aaaagatata gagttaatat aaaaatgaag aaaaaaaaaa aaaaaaaaaa aaaaaaaa 238

<210> 270

<211> 326

<212> DNA

<213> Ctenocephalides felis

<400> 270

cgcaaggat ggcataatgct ttgttagcaa atgttattcc aacagcagga ttatatgtgg 60
ctttctttcc tgcattgggt tatgtagttt ttgggtcatc cagacatgta tccatgggaa 120
catttgctgt agttagtata atggtaggaa aaattgttca agaatacgcc tattttccag 180
acgggtgtaga gaaaaataca ggagatacga ccacaattcc tgaccctgat gtgcaatacn 240
atcctacaga agtggcaacc gcagttacat ttctggctgg aatttatctg cttatcatgt 300
ggatttttcg totaggggct cttagt 326

<210> 271

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 271

tcgcaagaaa tgttcaactct aggaatatgt aatatatttg gcagtttcgt gaagtcgatc 60
ccaacttggt gtgctttcac cagatcagca gtcagcaatg caagtgggtg tcgctctcca 120
atggcaggct tgtactcagg tactatgacg cttttagcgt taagttttct cactccatac 180
ttttactata ttccgagagc aactctttca tcagtgttga tatgtgctgt tatgttcatg 240
tttgattggc aaatagtgat gccaatgtgg cggactaata aattggacgt gttatttatg 300
gggtgtacat ttgctgcatc tttatataaa ggagtagaat ttggcttaag tgttggtgta 360
attctgactt tatgtccttt gctctatttg tgggcaaggc ccgaaattaa tcacatatct 420
aagtggacac ccgaaggctt tgaatatcgc gtgtatgcc agaccaggct tttactttcc 480
ttcggttgac tttttgaaan gagaattgcc aaagttcttt aaattttcng gtccttgatt 540
tagactgtc 549

<210> 272

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 272

gtntttttcca ttgagtagcg aatttgcccg tcttacaata ttaaactgga attcgttttg 60
ccgggtcgta gtaaccaatt taatataatg gtcctccac catacgaga cttgggaaaa 120
caagctaggg aggtatttaa cagtggctat ctttttggtc ttttcaaatt gaatttgaaa 180
actaaaactg cctctgggggt tgaattcact tcaggaggaa cttctgaaca tgaaactggc 240
aaggatattg gatcttttga gacaaaatac aaagtaagt attacggtct cactttttct 300
gaaaaatgga acacagacaa tacttttagct acagaagttt ccatacaaga tcaaatagct 360
aaaggtttga aagtatcatt cgactgctct ttgcgaccac aaacgggaag caaaactggg 420
gttttgaaaa ctgcttctta catgatagtg ttgcagtaaa tgctgatgta aatttgaatt 480
atcaggacct ttgatcaatg ccagcgcagt agtgggtatc aagggtggtg ccggtatnaa 540
ctgatttnc 549

<210> 273

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 273

```
ggcaaaagga tctgccaaac ctgcaagccg gcaagaaaga tagttcgaaa cgatccaatt 60
ccagcgatga agcgacgcat gtaaatacata ccggggaatg ggcgaggccg cgcagcgagt 120
cggcgggcga ccctgacgac ggctgcggga acacgaccga ctccgggagga acgtacgtca 180
aacgcacggg gtttagcgta tttctgtggt acgcctcatg cggaggagt cgcgagtgg 240
gcgtagcttg gtggcactca ggcagagagg aatactatga accagatccg gaagaaccgt 300
cagatcctgg atacgcgact ccggtctcta tcgagaagcc gttgcagagc tcagtgtcga 360
gatgcacttc cctgaatgtg atacgcgacc catacatgac gacaacggaa gggcgaacct 420
cgcgctgccg ccgacttacc tcttcacgcc tcgtcgcgca actactcaag attcggttta 480
caccatctga tcaggctccc ggggaccaga caaagacgga caagatcgca cccttcataa 540
aatgatatac                                     549
```

<210> 274

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 274

```
ggctcttggg cgaagagggt gttaacgatg ataacagtgt ggtggctttg tctcaagcta 60
aaatggacga actgcagcta ttcagaggcg atacagtatt attaaaaggc aaacgcagga 120
aggagacagt ttgcatogtt ctctctgatg atacttgccc cgatgaaaaa atccgtatga 180
acagagttgt acgtaacaac ttgcgtgtcc gcttgtctga tgttgtttct gtgcagcctt 240
gtccagacgt gaagtatgga aagcgaattc atgtgctgcc cattgatgat tctgttgaag 300
gcctaacagg aaatctgttc gaggtctacc tcaagcccta cttcttagaa gcctatcggc 360
caattcacia ggacgacaca tttattgtcc gtggcgggat gagagcaata gaattcaaag 420
tagtcgaaac agatctgctt cttattgatc gtggtcctgc acagtcattc attgogaagg 480
ggatccaatc aagcgtgagg aagagaagag ctcnatgctg cggtatgatg atattgtgg 540
gagaaacat                                     549
```

<210> 275

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 275

```
ttgacaagtt tcgatttggg tagttcttgt acttaatatg gaatcaatct catctgaact 60
gactgaacca caaacaatt ctaattcatt taccgttgat caaatagaaa ttgacatatt 120
gccactata tatgatatac tacgaagtgt tgaaagagat ccacatgata gcgctggcaa 180
aaccagagaa tcacaagatt gcagtgtgaa ggtattagac ttacaaaaga agttagaaaa 240
aattcgaagt caagttactc agctacctgg aattgattat aataaagagg aacaacttca 300
atatttagaa acacttagga aacaattaaa acttaagcaa gagcttttgc acaaatacag 360
gactatgtac acatttgatt caatgaaaat ataaattgtt taaaatgcct ctgcgatctc 420
tcatgaatta tttgctgaat aacgacgttt agttcagaag ttgctgaatc ttatccagtc 480
```

gaagagctgg cagttagcca tttcgctatg atagatcaaa atcaatttag ggacacactg 540
agaagctgg 549

<210> 276

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 276

ggctcgatat cgctggaaaa actttattat cgatgtgatt tatcaatggg ttcgtgagaa 60
tattctattt gctttgacga aaacaaaaaa ctgattagtt tattaataa atagtatatg 120
ttaatatttg ctgattggcg atgacggcag agaaagcgga cttttccgac agtcttctga 180
gtcggacggg agagcaggtc cacagaccaa catttcgctc tcatgccaaa gactgtgcta 240
gtgcttggtg caccagaaaa acottagaaa ggcatctgcc tatagtaaat tggttaccga 300
aatacacctg ggaaaaatta ggcagagatg ccattgcagg tttgacagta ggtttgacag 360
caataccaca aggtattgca tatgctgtag ttgcaggact agaacctcag tatggtttat 420
atgctggttt catgggatgt tcgtgtacat attcctagga ggatgcaaag atgtgacata 480
ggcccacggn catatggctc tatggtgcac gctatgtcaa gactgggcct gatttgcaat 540
ctgcccttt 549

<210> 277

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 277

aaagtgatgc aacaattatt ttcaaaatac aaaagtgtta aaaaatgggc gttaaaaata 60
tatatttata ctgcattctg atatgcctgc tacattatgc atcttatacc aaaactgaat 120
ctattaccaa caattctttg gaagaattgt acacaaacac ttctgccaaa acagattcca 180
ttactctttt atcaaaaacc agtctacgcg ctgatcaaaa tgccacgatt gaaaatcctg 240
atccagtgtc tcctgaaaag ggctccgctg aacaagaaca acacagctcg atgtctatat 300
tcttcgtgct ttgtgtgctg gctttaggga ttcttttaat tcatttcatg ttacaaacag 360
ggtttcagta ttacctgaa agtattgttg tagttttctt aggtgcttta atcggttga 420
taattaattt aatgtcgtct aaaaatattg caaattggag aatgaagaac cttttcacco 480
acagcggtttt cttagtgtc tccgctataa tattgaatcc ggtatattgc ataaggnatt 540
ttttcaaat 549

<210> 278

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 278

cttgcttaga aaaccatacg gaagaaccaa acctctcata tctcgtacca tgatgaaaaa 60
tataacttggg caatctgtat atcaactaac agttatatcc acactgcttt ttgttggtga 120

taagctctta gacattgact caggaagagg agcagactac ggttcattgc caactcaaca 180
 ttttacagta atttttaatg cttttgtact aatgacttta tttaatgaat ttaatgctcg 240
 taagattcat ggacagcgta atgtttttga aggcattttt acaaatccaa ttttttacac 300
 tatttgggta ggaaccgctg ttgcacatgt tgcatttgta caatacggag atctggcatt 360
 ttcaacaaaa gggctgaatc tcgagcaatg gcttgggtgt gttttcggct tggtcactat 420
 tatggggaca aattgtaccc agtnctacaa gaaagattcc taaaattctt cgtagtntac 480
 ttnttatttg atacacttca atgcaagaat aactagttta gttctantca taagaatgca 540
 natttagtg 549

<210> 279

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 279

aattcttgtg tgtagaataa aaaacatatt tgaaacgttc atataataaa aagtgcaaca 60
 tgtcagatga aatgcaagaa aacggaacta ttaatggtga agtgccagaa attgaactta 120
 tcattaaggc atccaccata gatggctgac gtaaaggagc ttgtttattt tgtcaagaat 180
 attttatgga tttgtacctg ctagcagaac ttaaaactat cagttttaaag gttacaacag 240
 tagacatgca aaaacctcca cgggatttcc gtacaaattt tgaagcgacg ccgccgcca 300
 ttctaatacg caatggcctg ccggtgctaga aaacgacaaa atcgaacgtc acatcatgaa 360
 gagtgtccct ggaggacaca atctttttgt tcaggataaa gaagtggcaa cactcatcga 420
 gaatttgtct ctaaattgaa ntggtttagt caaaaaggat gcgtaaaaag caatagtctg 480
 tgaccctga ggaatatcaa cgccatttgg gcggcgcgga cgagattcta cggcgaccca 540
 tgtntgntc 549

<210> 280

<211> 269

<212> DNA

<213> Ctenocephalides felis

<400> 280

agatctacta atgccgctt taccactgtc acagcaattc cgcaaaccag caaccacaaa 60
 tataaatatg atgctattgt taaatgttca ataaatgcac aaattattcc acaaatcccg 120
 catgagacca tcacgaatac aagaattgga agctttccca cagagttaat aatagcacct 180
 attatgggaa atccaatcgc atatccagct tccaacatta aagaatgcat aaatgcctgt 240
 tottccattg tgtctttaca ctcggtcgt 269

<210> 281

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 281

catcaaatat tgaaaggaat cgatcatggt caaatgcctg gaaaagttag cagaaaagcc 60

<400> 284

atcgatcttt ggcgggctaaa catatcttgc tgagcgaagc cggccgtata gaaatatgtg 60
gctttaagga aatgagagtt cttcctgagg gccaaaatta tataaaagaa aatctcgaca 120
atcctaagt 129

<210> 285

<211> 424

<212> DNA

<213> Ctenocephalides felis

<400> 285

gtaaacatcc atacatcttag ggcagtagga ttttaccata gcctctccag gcacatcaga 60
aagacctaata ggcagcatag gctgactatc gcagtaaaact ctagggaat atccgaagtc 120
tccagattgg tattttttcta tcatttgagc tatacctcta tttgttataa tataatctggc 180
gtgaattaga ccatataaca tctctgcagc ttgttctatt gcactctgact gatttggatt 240
atcatctatt tcatcatcag gtttaaatct aatatcatat ccaaggcttg tctatatcgt 300
ggaatttgct cattaaggcc tgtagattg aatttatcct gtatatagtc ttcattccacc 360
tcgcaaaaga attcatttcc tcgtagacca caaaaccaag atatccatga gacctcctca 420
gaac 424

<210> 286

<211> 204

<212> DNA

<213> Ctenocephalides felis

<400> 286

ggacggccga ctgctccgaa ttatgctcgg cacgtgttcg attcaaatga tcccgctacg 60
ttcgacatcc aaatgataaa cactatctaa tcaagtgatg ttgtttaatt aagcaagtgt 120
tagttcgaat tcatttttgt gttttgtgta tattataata aatggacccc gaaattcctc 180
tgaaaggtgt gactccgggt ttgt 204

<210> 287

<211> 446

<212> DNA

<213> Ctenocephalides felis

<400> 287

acacgcacga gcactataat cactttgaaa cttcatacac cgattgatgt catgtcgatg 60
tgtggtaaat gtcattgacag atcacagtag cagcaggaag gttatagggt gctcagattg 120
tatcttggtt cttgacacat gtattactga tgtttcactt ggttttctgt ggcaattgat 180
ggtgggttac ggctgtcgtt acagcattct gcaactgtgg tcctgatgag cttgaggact 240
ctatctgctt tcggtgactt atttccaaat ctgctaaaacg tttccataat tcatctcgtt 300
cgcgctcgcg tttcttttct ttctgcgttc tcttttataa cttgcagtca attcatcaaa 360
tagtttacta ttcattttcca tgaatgnttt taagacatta taaactaaag cacaattgct 420

gattccaagc tcttttgaaa tgcggt

446

<210> 288

<211> 268

<212> DNA

<213> *Ctenocephalides felis*

<400> 288

ccacaggaaa ggaggtagct atcaaaatta ttgacaaaac acagotcaat cctggttcgc 60
ttcaaaaact tttccgagag gtgcgcacatca tgaaaatgtt ggatcaccca aatattgtaa 120
aactgtttca agtgattgag acagaaaaaa ctttatatct agtaatggaa tatgcatcag 180
gtggtgaagt gtttgattat cttgttcttc atggtaggat gaaagaaaag gaagctagag 240
ccaaatttag gcaaattgtt agcgtctgt 268

<210> 289

<211> 465

<212> DNA

<213> *Ctenocephalides felis*

<400> 289

cggcaaagt ccaagctttt ttgcctggat ccacacgttt ggcaaatacca aagtcgacca 60
gtttgatgta tccttttagta tctagcatga gattttcagg ttttaaatca cggaagatca 120
tatttttgtc gtgtaaatat tcgaaagctt caataacaca agcggttata aatctagaag 180
ttttttcatt aaaacatttt gctttatgca acgccgtcca gacatcacct cccagacatg 240
cttocattag gaaatacaag tatttggtat ctttatatgt gttgtataat ctgcatataa 300
atgggctgtc acaactagcc ataacatgct tctcattgta aacgtgctgc tgttggtgct 360
gctgaacaat atcaactttc tggagacatt ttagagcaaa tgtcttgtct ggtgtggatg 420
gatgactgac ccagttccac gcgaccaaat ccgcaacgcc caaag 465

<210> 290

<211> 294

<212> DNA

<213> *Ctenocephalides felis*

<400> 290

ctatatctctg gcttttctaaa tactccatgc cgtcaataat ctgccgacaa tatgtaggga 60
aaagttcttc gtctataata atattctctt tctctcttaa ataatgcaac aaaatgtagt 120
ctagtttttc agtaatgatg taatgttttg gagtttcgat ccaggcaaga acttgctgta 180
tatttggtatg tttcagtgat ttacttaaat ttatctctct tttaaaattt tcatgttctt 240
gactttccac gccatctatt gtggttggtta ccaagagtgg ctttctcgaa atgt 294

<210> 291

<211> 203

<212> DNA

<213> Ctenocephalides felis

<400> 291

gaaaagcagc aggatttggt gttttcogac gactgtctga cacaattcaa tatctactac 60
tacaagcttc ttacgcaaatt tttcattgga gtccaccaaaggccattta aaacgcaacg 120
aaaatgaatt tgatgcgga cttcgagaaa cattagagga aacagggtctt tgcaaaagcg 180
atattaaaat atttaaagat tgt 203

<210> 292

<211> 283

<212> DNA

<213> Ctenocephalides felis

<400> 292

catcactgag aagaactctt cggctacgga atatcttcat tggaggcgcg ttgttggtgc 60
acgcagcatt aacaagggtt ttgcaattca gcataatgac cagaagaaaa atacagggtac 120
tgcttttcat tttgattcag taatagatta cttcttgaga tagataataa tactgtggag 180
aagtaacctt cacatgaaat aggcttgggt cttataatta ctggctttgt tctggatatt 240
agaaatctga tcacaaaatt ttattaagtt attattatgt taa 283

<210> 293

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 293

agnnttgctg annaancct nannaagctt cntcgagngc nngaattcgg cttagcgtgg 60
tcgcgggcgg gggnacaaagt atcaaactg ggctacgggg gaccgtaga ttcccaacat 120
tctacaaggg gcgncnttct ttantaaaat atcatccaga ttttcaaac gaccgatgga 180
ttngcccggg tnaaaaccag gcacacctg aactaacgct ttagttagcg gnggaggngg 240
cacaatgcag gatgaccagg tcaaaccgag gnocttgagg gtcacatggn ccatgaagac 300
cacaagcagt agggacccn atgagataat gtntgaaatt cgaaaagttt tggatgcaa 360
tggatgcgat tatgaacaac gtgaaagggn tttactactt tgtgtcacgg agatctatca 420
cggatagttt agtacaatgg gaaatagaag tctgnaaatt ggcaaacttt ccttgatgg 480
aggtcgattc aaacgcattt 500

<210> 294

<211> 302

<212> DNA

<213> Ctenocephalides felis

<400> 294

actgtcatca togttaact ccagtaatat attatctgat ttcagatctc tatgtgcaat 60
tccataagct gataaatggg caatcgcttc caaaagttga gcaaacaaaa ttatggacgt 120
cctcattgat attttattac tactaagata atcatgaaga ctgcaatcgt atctcttcat 180

taacaaaaac aatgacatat ttctaccata accatcactg ttaattcttt gtggtaaagc 240
 tgatggaaac aaactggctg ctagtggtaa accagttgga attctatcag caaacacgct 300
 gt 302

<210> 295

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 295

aagctttctt tttttttttt tttttttttt tttaaatcgg tccaaaacca tcattggntt 60
 attcattngt agaaatngag atgttaaaat tgactccaat cctnttaata atatcggtg 120
 ctaccctact tccaaattct gaacaagttt gtaaagtatt gtctgcaag aatttatata 180
 agaagccagc gaggaatgca tcacctgcac ctgttgatn ttttataagc gccgatggaa 240
 ttttctcgat ttcaacagac cattttgcaa atcttttcat cttgttggtt aaatatggta 300
 actgggtttg aagcatcagt tgctacaact atcttacttt tgaagctagt gcatttcttc 360
 tttagaggct tgtaaaactt aatcaaagtgc tccataacac tatccaagtt attgaaatta 420
 taagccttgc ctaattctaa aaattgctca gcggnntcca aagactacat ctgcagattc 480
 tgctagcgnt tttacatt 498

<210> 296

<211> 227

<212> DNA

<213> Ctenocephalides felis

<400> 296

cactacctat tgatcctgct atgtttccaa cgtggcctgc aaaaagtga cttggaacaa 60
 gacgtgcact tgccagtagt cctaaaccac cttcaggagg tgaccagttt aaaacattgg 120
 gggaaggtga aggagccgat gcgtattggg gtgaacgagc atctttgttg gatacaagaa 180
 acattccaat ggggtgcaggc ttctcactca agttttaata aattcgt 227

<210> 297

<211> 452

<212> DNA

<213> Ctenocephalides felis

<400> 297

ggcacgaata tttgtcttca taatcattac ccgctcttgt atattgagtt ttagggatca 60
 acttcttcac ataattctca tttataaaac gttggaacaa aactccaaat gttgttttcg 120
 ctttcgaatg tcgaaatagt gcataaaatt catcgaagtc caaaaaccgt gaatgattag 180
 agtcacccaa actcataaga tactgagtcg cagattctgg aaactcatta ttatattcac 240
 ttctctctac aattctttgt aattctctga cagatatcaa gttatcatta tctgtgtcat 300
 actttcaaaa tacaattaat tattgttaac gtgcatacat aaactttgat ttattataat 360
 tttacottcc cgaataggta tctgatatat tgatcagttt ccctcaacgg tatattatat 420
 tccatctcta attgtgatat ccttctctga gt 452

<210> 298
 <211> 138
 <212> DNA
 <213> Ctenocephalides felis

<400> 298
 ttagatacaa gtattttctga tgatcttagg aagtatagaa cctactctgg aagtaatgtt 60
 agagatttat taagagctat aaggaataag aagcatcatt atcatcaact ctcacctgat 120
 gcattgaaag ttttgggt 138

<210> 299
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 299
 aatcattctc tctgatatgt gtatcaaaat ggcgctatca actggccaaa ttgatgtcct 60
 tcacaatctg cacaaaatta gagaacaaag ggccaacttg gtggacaaca ctaatcaatt 120
 caaaatagtt catatgcttg ttttggaatg cttatttga gagtctacaa gtattccatg 180
 tgaacatttg ctaaaaaactg tagccgaaat gaaaagtcgt aatgaaatgt tcaaaatgtg 240
 gaaaaaata gacgatgtcg catggaaaga tgacttcgtt aaaggaatag acagtgaacc 300
 atctcaagaa gatattgcga gaaaagagaa tagaaataaa attgtgccag gaagacgagg 360
 togtgtattt ttgtcaagat ttccattgac aaaagcagat tcggattata taaatgcaat 420
 atttgtagat ggatttcaaa caaaacgtca atttatcggg acgcattttt ctttacatca 480
 tacagttgct gatttctg 498

<210> 300
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 300
 cttntgttta aatattgtat tttattanat tattcgttgn tattaacgct gngactatag 60
 ataataatatt taacaattta taattcaatg ggtgttagaa ctgcatgcag gntatttaat 120
 taagaatggg cgcttattta tccaagcctg ttgtggaaaa gcattcgagc gatgaatcga 180
 ataacatatt aacttgtgca gntagtagca tgcanggatg gagaataact caagaggatg 240
 cacataacct gatattaaac ttgacaagg atacatcact ctttgctgtt tatgatgggc 300
 atgggggtgc cgaagtggct aaatactgtg ctgaaaagtt gcctgattcc atcaaggaaa 360
 ctcaagctta taaaaatggg gatntancac aaggtottaa agatgctttc cttagtntg 420
 atgctccatt gcagaanaaa aagtcattga aataactcaaa aattatccac ttigataatg 480
 acattaacan gcaagtcagn tgaatggact gangatgacg gtattanatg atcctcagaa 540
 tctgngaag 549

<210> 301
 <211> 547
 <212> DNA
 <213> Ctenocephalides felis

<400> 301
 agtttctact tttgacatct tcattcattg tgccgacaaa atgttgtaaa atgctgtttt 60
 ataagtgaat tttatacgaa taacttagaa ttatatttta ttttattgag tgcattgtgtg 120
 tgttcgagaa gtctcaaagg tcaatttgat aaaagtacaa gaggacctgc aagatttttg 180
 taaagaaatt atataataag tgttttatta atatatattta tacaatggct ttgaacaaat 240
 tgagtatcga gagtgtggat ttggaaggca agaaagtctt tatgagggtt gatttcaacg 300
 ttccgttaaa aaacgggtgt atcacgaaca atcaaagaat agtggcagct ttggatacga 360
 ttaagtgcgt ttgaataaaa atgctttgag tgttattctg atgagccatt taggacgtcc 420
 tgatggcttc taaaaaggaa tacagtttga gacctgtgcg aggaattgaa gaactattaa 480
 acagggatgt gcatttttgg aagactgtgt gcccacaaagt agacaagagt gcataatgca 540
 agcaagg 547

<210> 302
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 302
 aagcnggtac caatgccgaa attgaattaa aacgcggcga aaccatcaaa ctgaccaccg 60
 acagagccta ttccgaacga tgcaccgatc aaattttata cttggattat gaaaacattg 120
 ttagagtggg taaaccagga acaaggattt tcatcgatga tggcttaatt agtgtcatag 180
 tgcaaagtgt agcaacaaat accttgattt gccaaattga aaatgggtggc cttctaggaa 240
 gccgtaaagg tgtcaatcta ccaggagtgt aagtcgattt accagcactc tccgaaaaag 300
 acaagcaaga ccttcgtttt ggaattgagc acgacgttga tatgattttt gcttctttca 360
 ttcgagatgc caacgcttta gatgaaatca gagcagtatt aggagaaaga ggacgccgaa 420
 ttaaagttat ctctaaaata gaaaacaaac aaggagtagc taatgcagat gagatcatta 480
 gggcttcoga tggttcatgg tgccgaggtg nttgggaata gaaatccgca gagaaattgt 540
 cttgacaaa 549

<210> 303
 <211> 547.
 <212> DNA
 <213> Ctenocephalides felis

<400> 303
 aatataataa tgatggtata cgtttgatag gttctactgc tcagttttta atacagtatt 60
 atattatcga attctcataa tttcatctaa ttttgagctg gatagagtgc tgattgaaat 120
 atccaaattt cagccttgtc acaatcagaa tgactgataa tagcgattta gatagacaaa 180
 ttgaacaatt aaaaagatgt gagattatta aagaagctga agtaaaggct ctttgtgcta 240
 aagccagaga aattttggta gaagaaagca atgttcaacg agttgattca cccgtcacag 300
 tttgtgggga tattcatgga cagttctatg atttgaagga gcttttcaaa gtgggtggtg 360

atgttcccg aacaaactat ttgtttatgg gtgattttgt ggatagagga ttttacagt 420
 tggaacatt tttattgttg ttagctttaa aagttcgata tcctgatcga attcattaat 480
 aaggaggaaat catgaatcaa gacaatacac aagtatatgg atttatgatg aatgcttaga 540
 aatatgg 547

<210> 304

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 304

aaanaattga tcccaatgga gatccatcac attatgatat aagatctgat gtctgggtcac 60
 ttggtatttc tttattggaa ttggcaactg gtagatttcc ttacaatata tggggaacac 120
 cttttgaaca actaaaacag gttgtgaaag atgatccctcc tcgtttacca gccggtgtat 180
 atagtgaaca atttgaaaac ttgatagaac aatgtttaca aaaacaattt gaacgtagac 240
 ccaattatca acagttattg cagcatgaat tttgtgtgac ccatcgagat aaaccaacag 300
 atgttgcac atttgtgaaa gatatactaa cgtttgatac agtacaataa atttgttctt 360
 actaatattt agtattaaac taataaatta taataatgta gttaacataa cttgttgctg 420
 ttagattttt tgaagttata atcctgaaac ttgcaagatt tgtttcaaatt gtaaaattat 480
 atataaaatc atatttaaca tcatttacat catatacatg atattttgtt aaataaacct 540
 caattctcg 549

<210> 305

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 305

aactcacgca actccagccg cgctctacgc gagaagcggt caccgggatt gggaatgcga 60
 tgtgtccgtg cccgaaaatt tcagggagat gagcggctta aaggacatcg ccaggcaact 120
 tgtgcaagaa gcaccaggca ataaattgaa cgtaattttg gcgggtggaa gcgacatgat 180
 gggcagcagc cgcaaccggg agtcggcgtg ccaacgcgga gatggacaag atttggtagc 240
 agaatggctt cattcgagga ctagcttgaa ctcccagggc gtctatgtta atacgactgg 300
 tggacttgaa aaggcgaaaag tgaatgagat cgattacttg atgggtatat ttgcagcaga 360
 tcatttgccc tacaatgcag tgagggataa gggtcctaatt ggaactccgt ctttagcaag 420
 gatgacaaaa caagcattag gaatattaca aaggccagat aaaggattcg tttaatgggtg 480
 aaggaggcgt attgatcacg ccatcataaa attttnacaa ttagctcttg cgaactgctg 540
 aatttgcga 549

<210> 306

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 306

gaaaaataga acattatcga cgttttaaatt tctccaaaat tgtaggtta tgcaaaaact 60
 ttgtccacaa agactctgct actacaccag agattgatac cattttctca aatggacgca 120
 atttaactat atcaactggc aaatacgetc gattttgcga tggatcagct gttgccaaaa 180
 ttggtgatac ttcagttatg gttacggctg tgtcaaaacc aaagtctcat aatggtggga 240
 attttcttcc acttggtgtt gattacaaac aaaaatcagc tgcggcagga cgcattccta 300
 cgaatttctt aagaagagaa ctagggtcaa cagaaactga tatattaaca tccagggttaa 360
 tagatagatg cctcaggcca ttatttccac ctaactatct caatgaaacc caattagttt 420
 gtaattcggt agccgtgatt caatatacaa tgcgtgatgt ccagctatta atgctgttca 480
 gctgtttgct taagtgatta ccatggaatg gccaatgng ctgtaggatc ggttaaaaga 540
 ttgcactga 549

<210> 307

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 307

ctcagtttta gttcaacagc aggcgaagtt atcgtttccg gagcagaaga cggtaaatat 60
 cgtgttttga acttgcaagg ccgacaactg tatgggggca atgcacacca tcaagccgcc 120
 gtgacttctc ttgcttgggc tccatccgga gcttattttg ctctcggctc ttacaacgga 180
 attcgctgt ggcacagcgc tgggtggtcg catgctttga ataaagccga aactggttct 240
 ctgtacagca ttgcatggtc acaagacgga actcgtattg cagcagcatg tgccaatgga 300
 catgttttat tcggaaatat tatagaaaag gaattgtgca aatacagcta taacattgtt 360
 ctaactacag ctagtacttt gtcagtgcgc agtataattg atacaacaat aatgaagtg 420
 cttgaattta cagatcgagt aacaaatttt gatataaact ctgagcatct gtggtcacta 480
 caccaactca atgcntatat ataaaattga cgatttatto acccacagtg ttgagttgaa 540
 ggatggtgta 550

<210> 308

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 308

aaaatctttc atcatgtagc gtataggaga aatttatttg cctaaaatct gcgttattga 60
 tctttggctt actaatcaaa agtgatcgac ttctttcttg tagttttgta gtagtgttta 120
 aatcatttgt taataatgga aattgtgggt gatttcgagt ataacagcaa ggatttaata 180
 ggacatggag ccttcgctgt ggtctttaaa ggaaggcata gaaagaagac gcatcttggt 240
 gtggcaatta aaagcataac aaaaaagtct ttggccaaat ctcaaaattt gttaggaaag 300
 gaaatcaaga ttctcaagga acttactgaa ttgcaccacg aaaacgtagt cgccctcctg 360
 gactgcaaag aatctgctca caatgtatat ctcgtaaatg agtactgcaa tgggggtgat 420
 ctactgact atctcagtgc taaagccctt aagcgaagat caattagact tttcttgcca 480
 ttagcggcgc atgcganttn atgccaaagc tcgactcgga ctgaaccgag attctctgcc 540
 atccgcagc 549

<210> 309
 <211> 308
 <212> DNA
 <213> Ctenocephalides felis

<400> 309
 ttataaataa agaacaagaa ctgaaagaaa aatacaaaga tgatcaaccg attgaatgtc 60
 catactgggg cgggtatata gtaatacctc gatctattga gttctggcaa ggccaaagtg 120
 atcgcttaca tgatagaata aaattccgaa agttgcttcc aaatgaacaa atagatttga 180
 atttaacaca tgaagcagat aatggatggg tttacgaaag attatcacct taaacttaaa 240
 attatttata tttttatgca ggaaagccaa aataaaaata gttcaataat ttgaacttat 300
 aattatgt 308

<210> 310
 <211> 437
 <212> DNA
 <213> Ctenocephalides felis

<400> 310
 cacgattcaa tatcgacgat ttcaaaattt gctgcgttga ctttataaat tttataattc 60
 ggatttcggt taacgtaagt tgtaataactt cctccattga atgcaacatt aataggatgt 120
 gatgaattca tagaatcata gaaaatctta aattcgatcat tatgtgtgtg gccattgaat 180
 tgtcctgtta ttatatgcga aaatctttgg atgatgcgcc tatattctct gtcccaagta 240
 atgaagttag tgggttcacc aggaggaaca tgtcccaaaa tgtgcacttt ttcattagtt 300
 ctttctgctt ctaacagagt atcatgtaac cattgcaatt gotttttggg gaatgcagga 360
 tcatacagta accacaaatt ataaatatag gccacattat tattcaacgc tatgactcgt 420
 agtccaagtt taggtgt 437

<210> 311
 <211> 173
 <212> DNA
 <213> Ctenocephalides felis

<400> 311
 cgaaacccga gcaaaaatgt aaaaaagtaa aatttagttg cgtgaattcg tgcagttcac 60
 ccgaaatgca gtattgtccg gaaataggag cagatccggt taaggaatcc tgtagcccag 120
 atcaagtgtg cgctgatcaa agtggatata tacagtgcac cactaaagaa agt 173

<210> 312
 <211> 337
 <212> DNA
 <213> Ctenocephalides felis

<400> 312
 cgtcaagtcc aatccaaaag tggaagcttt ttcaggaaag ttactaagag aggtgtcatt 60

tccaccagtg ggatcgagaa ataatcgac aattagctgt gttcgtgccc tggaccaata 120
 tgtaaattggc caaggaggct atgccactct tgtcaatggg ggagttgggt ggaaaaatgt 180
 aactttactc ctatcttctc agactggcaa aggatttaac ttcttagttg aaatttgggg 240
 atattagatt agaaatataa tgaaaatgtg aatatagaaa aaaaattaaa tatacaatag 300
 tatttttagaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 337

<210> 313

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 313

attgaagacc gtacacaggc ctgttcaatc tggaagctaa gggttctaag ggtgctacaa 60
 ctcttcaat cgcataaact aagaacaaag gtttcttctc actcttgctc tcctttgatg 120
 tcaacctcaa caatactttt totggcatga gttcgttact ggcaaagctg acttggttgt 180
 cttegtgtgt gactgcacca ttgggtgttg cagaagtatc gccaccacct gcacctaat 240
 ctttcagttt accaaagggtg agtgatctga tttcttgggc attcagtact aagtcgtaat 300
 ttctttctaa agtttgttta atttcagctc ccatcagcga gtccatacca agatcagaga 360
 gggtagcaga ggcctgtgta tttttgggtg ccttaagacc taatatattt gcaactgcat 420
 caactaaact aacacctcct gcaccagcac cagcgtctgc tttcctctta tcagctaata 480
 ccatggaggc caagacan 498

<210> 314

<211> 457

<212> DNA

<213> Ctenocephalides felis

<400> 314

tgnggttggt attatcanca accccaaaaga caagcangtt gaaatgtctg tttcaaaaat 60
 aaactgcaca nngattttta gctgacccta taacacctgt aanaagattt acaanancct 120
 cnaaactoca tgcgaacaaa aatggaatta cttgtgctac gaatacangg ggaatttgtt 180
 atntgcattg gaaaatgagg aaaattttga ttccaaattt cngattgata catggaatag 240
 gcaanatggt aaatggggtg gaattacttg tgttttacag gatggagatg tgtttgaaaa 300
 agcgggagtg aatatcacag taatgactgg tgaactanaa cccagggcca ttcaacaaat 360
 gaaaagtcgt ggaaaacant tcatccantg aagggtggacc actanaattc nttgcggcan 420
 gtgttagtgc antaantcat cccaaaaatc ctcatgt 457

<210> 315

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 315

tggcgaaact atgggtcact ctgctgatag attggtgtgt gctttcaaag catctcgaga 60
 agaacaagat gcatatgctt tgaaatctca tacatatgct aaaaatgcac aggagaaagg 120

atatttcaca gacattgttc catttcaagt tccagggtgtg tcaaagatgg tagaaactga 180
 caatgggtatt cgtgtcacat cattagaaaag tctggccaaa ttgaaacctg cctttgtgaa 240
 accccatggc acaattacag ctgctaattgc atcattcttg actgatgggtg cttcagcttg 300
 cctcattatg actgaagcca aagccaagga attagggttg acacaaaag cttatctaag 360
 agaatttttg tatgttgccc aagaccaggt cgaccagttg ctgcttgggt cctgcttatg 420
 ttacacaaa gatcttagaa cgtatgggtc gagttaaaag acatagatgt ctgggaaatg 480
 catgaagcctt ttgctgggt 498

<210> 316

<211> 465

<212> DNA

<213> *Ctenocephalides felis*

<400> 316

cactcgtgtt tttttcccat cttcattttg actgccaac ataagtataa tgtctttatc 60
 ccctagattg ctgcttgaaa caacaactgt atgcacatga cggctatgaa accattctgt 120
 gcatttccat gcacgtcaa tgttatgaat ttgcaacca gtgagcaact ccacctcaaa 180
 ttgatttgga gtaacaatat cagccaatgg aataattagt tctctataaa ttggtataa 240
 tgattctgga acatacattt ttccattatc acctaact ggatcgcaa cgtatgtcaa 300
 ttttgattt ttttctctca attccttaac gacgttcgca attgttttaa gaaaatctgg 360
 attagctaca taaccogtta ataagtgact gtagacattg ataccattca atgctaacc 420
 ttctgccagc tctcctaatt ccttgtccgt tagaacttgc ctgct 465

<210> 317

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 317

tttttttttt tttttttttt tttttttttt tcttgaatnc ataataaaat ttattattag 60
 ntnattataa aaaaaatact taaaaaatat attatatgct taaatngttt catgtagnca 120
 tatatttatt acatgancct tttaactaaa tctataangg gttgaatcaa ttctccgtt 180
 gnagttncat tgttattaac aagancaaaa tccagtttt cataattatn taaatcacat 240
 tcanangcaa catcatcaac accttongta aatttccaac ctoganattn tcgaatgcat 300
 ttactgcaat taattctaact ngttataact ttagcacat atttttcaat aaaccatttt 360
 atatctgngt tcctgcggat atcactaact atgcaaata gttttgaaat tgcttgcaa 420
 gccctttaca aaaataacca taatcttcat ttcaaactcg gtcgctccat tctatcatc 480
 tttctgagct ttctttanat 500

<210> 318

<211> 585

<212> DNA

<213> *Ctenocephalides felis*

<400> 318

nctgacaatt tatcttaata gaatagcaca agcaacattc gacaactttt caatggctgg 60
 ggtctatttc gtgcatcgaa gtcgttaaag gaaaattcgc ctactgccaa acatgaagaa 120
 ctcatggcaa aagcatgggtg ttttgaggct tcagaacgcc tagaggcaaa tttaaaacat 180
 gtagtaagcg gtaagcattt agatttatat accaaattag ctacaatagg caaaaattca 240
 tgcgctgcc aatggagttcc gcaaaataat ccattaaatt tgtaataaat attaagtatg 300
 tgtaactaag cttaagttca ttttaatttat tttattgata aatactttaa tttaacagaa 360
 tgtaaatatt tcattttatg taaataatta ggggggnattt gttatcaaga tgcgtgcgcca 420
 aataagcctt gtcatacaga ttattttcaa ttttgataat aagtaataca atgcgcattg 480
 gtacattttg naatctgaaa tattgncaat ggctgatat atttaaatat aaaatgaaaa 540
 aaattaaaaa ttaannnnn nnnnnnnnn nnnnnnnngg ctgg 585

<210> 319

<211> 363

<212> DNA

<213> Ctenocephalides felis

<400> 319

cctcctagtt cacctgtttt ataatcatnt ggaaaaacat gatgataatt gtgccaacct 60
 tcaccaaggg ctgcaattgc aacccttaag ttttccactg gacttatatt tttgtcataa 120
 ggtttctggc cccacatatg tgcaacactg ttcacaaaaa atgcaatatt taggggtcaaa 180
 cagaacctaa aattaaaatt gacccaaaaa gaaaccata ggtcttcttg ccaaaaatac 240
 caaggcgcca aaaccggtta acctatggcc aatagggcaa atagagggat gtaaaacctt 300
 ttttgccaca tgactactgc atcggcttcc aagtcactca tatcaacctg tttcctttta 360
 agt 363

<210> 320

<211> 223

<212> DNA

<213> Ctenocephalides felis

<400> 320

ttcatcagaa gtgtttccac agtctggcca anttaageta tacccttgge agctagtgtg 60
 gacgattctc cttaaattagg atggactaaa tgagccatgt tcggtgctcc accaatgcct 120
 atgctacgga atgcacgttt tgaaacttca tcgaaaatca tacccaaatt tgctgcaggg 180
 tttttaaatg ctttttgtaa ttctttcaaa tgtgcaccag cgt 223

<210> 321

<211> 337

<212> DNA

<213> Ctenocephalides felis

<400> 321

ttttataagc agaaccacca ggtgaaagat aaacgttcca ggatcctgca ttattgaaaa 60
 ctttcagaaa attaccagat aatttatatt gtatacaaaa cgtgtctgta tatgcagcag 120
 cctggatgga agatggtaac ttttgattta gtttggtaac ttttttcttt tcatctggtt 180

gaaaattgga tCGttcatac acttttttga cgcgttgac aaaagtga aaatcatcgt 240
aattattggt ttgcaataaa tcattcaacta caaataaccc atgaatgctc agtggttaagt 300
tactgttgta actaacaaaa tctatgagag aaagtgt 337

<210> 322

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 322

gaaccaacaa attccatcta caaccaaatt taatattaaa atttgaaatc atttttaaaa 60
aatgatcgtc agaagtgttt tgggcctttg tgtcctggtt gggctcctgg tgtctgcaaa 120
agcagattta acagatgacg tcatggctag gatgcctgat gacttcagga gggagtattt 180
gtaccagaaa aagttgacag tgggtgatct gattgagcaa aatgggtacc cctgtgaaac 240
ccaccaggtg acaacagaag atggctacat cctgaccgtc tacagaattc ctcacaacag 300
aaacaacgac accattacca ggggagcagt cttcgtaatg cacggactcc tgtccagtgc 360
tgctgactgg gtcgtcctcg ggccacatca aggactacca tatttgcttt cgcaccaagg 420
ctacgatgtt tggctaggaa atgcaagagg caacacactg tcaggaatca cacacattga 480
gtgtgaagag tgggtgaatct ggaattagtg gaacgagatt gttatacgat ttgctgcatg 540
atcgatacg 549

<210> 323

<211> 369

<212> DNA

<213> Ctenocephalides felis

<400> 323

ggatgtgatg tgtctaaagg ggaaactttg tctgaatata ttggtagtgg accaccacag 60
ggcacaggat tacatagata cgttttttctg ctctacaagc aaccggataa aataaaattt 120
gatgaattga gactgactaa cagaagtggc gataatcgtg ggcagttcag tattgcaaaa 180
tttgccatga aatataattt aggtcaacct attgctggaa atttatacca agctcaatgg 240
gatgattatg ttccagaact ctataaacag ttgggagctt agctggctaa aatatagttc 300
aataataata tgaacaatgt ttgaatttta ataaaactat tatttgttga taaaaaaaaa 360
aaaaaaaaa 369

<210> 324

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 324

gcatattatt tattttttata tatgtatata cagctagata agttaaacat gcactcattg 60
agtttcatca tcttttagta gtggcatttc gtcttcttcc ccttcttgac gaattttgat 120
gtgggcattt ttgtcagttt gtgattgcgg tgcttgtgta gaaccaacac tttttggtgg 180
atatggtatt ctgaacaatt gaattcggag atgatcacat atttctaagc agacttgtgc 240

acagtatctc atcagatcga agatggacaa agccaaacaa aggcagagaa cataatattc 300
 atttacaaag ttgttgaaat actgatttag gaataataaa gatggtccta atagagccca 360
 gtctaaatat tccatttcac tttttgtcat atgcgcgacc actaatctgt ttgtgacctt 420
 tgcagctcca ttccaaaggc gagaatatac aaagcgggat gattctcaaa tatattgctg 480
 gactcttctg gcaaataatg aatgcaggaa tacaacccaa ctgaatggat tattggtaca 540
 aacctgtcc 549

<210> 325

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 325

gacaaatccg agaacttcga tgattacatg aaagccttag gtgtcagtct agtcacccgt 60
 aaattgggca accaagttag cccagtggta gagctgacta agaatggaga tacctatacc 120
 ttgtcatcca ctagcacctt caaaaattcc atcatcacat tcaaacttgg tgaagaattt 180
 gatgaagaga ctctgatgg cggaaaggta aaatcggtag tcaccttggg tggatgataaa 240
 ctgactcatg aacaaaaggg agataagccc accaaaatag tccgtgagtt tggaccaact 300
 gaaatgaaag cagttatgac tgttgatgat gtggctctgca cgagaactta caaagcattg 360
 taatttcaac actacggttt tctatTTTTG ccttaagtta tatgcatact cgtatggaat 420
 ctgttataat acagactaat tgactaatta tggcattgta ggatgctgct tgttcatctg 480
 ntaaagtact gtttaacttt tttgttttat cgaangatga aattaanctt aaaaaaaaaa 540
 aaaaaaact 549

<210> 326

<211> 298

<212> DNA

<213> Ctenocephalides felis

<400> 326

aagctaccac catcgcaaaa tgcgataatg gagctccttt gccaaaccagt gttgacgtcg 60
 aaggatgtga caaattacct tgtccattag ttcgtggtag cacttctttg actgatgtta 120
 aatttactgt ccctgccgat tctgctactc tgaaaccaga ggtaaaagcc aaagttgccg 180
 gtgtcaccgt tccttaccba ttacccccag agctaagtga tgcttgccaa tttcttaagg 240
 aaggatcatg ccctttgaaa aaagacgata aagtcacata caatctaaaa gttccagt 298

<210> 327

<211> 598

<212> DNA

<213> Ctenocephalides felis

<400> 327

gaaatcaata agacattatg aaactaataa acagtatgaa agtaataaac aatatgaagc 60
 tagtaaacaa tacgaaggcc ataaacaatt tgaacctagt cgaccttttg aagctaataa 120
 acaattcgaa gctagtaaac aatttgaagc taacaaacaa ttcgaagcta ataaacaatt 180

cgaagctaataa aaacaattcg aagctaataa acaattcgaa gctaataaac aattcgaagc 240
 taataaaciaa tttgaagcta gtaaacaata tgaagctaata aagcaatatg gagctaaciaa 300
 acaatatgaa gctaataaac aatatgaaag taataaacca tatgaaacca ataaacaata 360
 ccattcaatg agcgaacgac atcatgaatt tagcaaatca ggaggatatg gaggctcgaa 420
 tttcgatcaa aatcaggcan atgcaanaaa ctttganaga aacggaaaat ttgaaagcag 480
 cggaagctat caatatcaca ntgaacaaat ggcgagaaat ctactgattc aaataagcct 540
 tactcctaaa catatcgatg agctaataga aacgttatct gatagttcaa tgtactcg 598

<210> 328

<211> 221

<212> DNA

<213> Ctenocephalides felis

<400> 328

gaacaatata gataccaaaa tcattttgaa cgagatggaa cttgcgcaag agctcacatg 60
 gaatcttttag ttgatggtaa aataaaattc agacatgtca tggaagaaaa tggaaaaaaa 120
 gttgaattta gtggacaact cagacgtaat gatgaacatt ccggtaatgg atatctgaga 180
 atcagttatg aagatacaaa tcgagaatca gattatatag t 221

<210> 329

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 329

ttgatagaca gatcagtcgc atcaattgaa tcttgagcta ttttgcctaa ttgactatct 60
 tgctcaattg gaactgactg aatagacgga attccttcaa tactttgact tccaattcca 120
 tctccaagaa ttttctctaa tttttgggtg aataaggaaac ttctaattga cgctgagtc 180
 gaatttttat ctctgagctt tacagaacta gatcctgtat tagttttatc agtttcgggt 240
 ttataacaat catcacattg agaattcacc agtcctgcag gatcaactat ttgaatattg 300
 tcattacagt gagctttatc atcgttgtct ttgaattcct catttttgat atcgatttca 360
 tttttagttt cgggaaaatc tttcagcgct ccgtcacgta gtaagctaga ttcagtggaa 420
 gatattgaac tacttctaata tgatttaatg gatgagttat tgctttttga agagcttttt 480
 cgaagttca 489

<210> 330

<211> 352

<212> DNA

<213> Ctenocephalides felis

<400> 330

cagtttgtcc aattactcgg aatggccaat gcttogaatc ttgctgcact gcaggttctt 60
 cccattttct accaattaat cgttttagcat caaatacagt attttttgga ttcatacgcg 120
 cctggccctt agctgcgtct ccaaccaaac gttctgattc agtaaaagca acatagcttg 180
 gcgtggtgag atttccctga tcatttgcaa taatctccac ttttccctgc tgccatactc 240

cgacacagga gtatgtagtt cccaaatcta ttccaatagc tggcattttt ttctatgtta 300
gactgtttga ttgttaatca aaattaaatc caattgaact cgaactttgc gt 352

<210> 331

<211> 265

<212> DNA

<213> Ctenocephalides felis

<400> 331

tttttttttt tttttttttt tttttttttt ttctgcatca gataatacct cataagcngg 60
tcttagatct tgaaacttcg aggctgcac tggatcggtt ttattcttat caggatgcaa 120
ttcctttgct tgtttcctat aagctttctt aatttcattt aacgtcgac tacgagatac 180
ttttaatatt gaatagaaat ctggtccagc gctggctagt aaaaaataaa tacttaagtt 240
aactaacact aaataacaca gtttg 265

<210> 332

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 332

acatagtgat cttcatcata ataaccgatg tcaccagttt tgaaccaacc agtttctgga 60
tccaaaactt cagaagttgc ttcaggacga ccataatacc ctaacattgt agggccacgt 120
agatacatct caccttgccg atttgccct aaagtttctc ctgtagaagt atccacaatc 180
ttaagttcag tgttcattaa aacgtgtcca acagttcctg gtctatattc tgcgcaagtt 240
atagttgtag ttccacccat acattcggtc aaaccataag aaaccaccaa ttaccattt 300
gtcaaagtgt tttgcatagt ctgcacctgt tgtggtgaca atttgaacc aacagcaaac 360
agcaacatta catctccaaa tggttctgca agttcttctt tatcttgtaa atacaaattc 420
atcagagaca attggttaaga tgatagtagc atcaggcctg cttgtattcg cgcataattc 480
tcaataagtt tcttcgtt 498

<210> 333

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 333

tccgaagcct tngccgttan tntttactca tcaactocaga gaaggcaata aaattggcag 60
caaacgactn tttcagacac catttgaagg acaaaaatgg taatttacca ataacaaatc 120
aaatggtggc tggaggggtt agctggatta tgtcaaatag taataactac gccaatggaa 180
ttgttgaaaa tacaaatgog ggatgcagga cggatagctg ctcaaaaataa aaaagctgga 240
atagccactc otaagatacc agctactgaa ttaacttttg gacttattag agacaaaggt 300
attttgggtc tatataaagg aactggtgcc actatgctgc gagatgtttc attttctgnt 360
gtttactttc ctttgttcgc tactcttaat gcaactgggtc caagaaaaag tgcggattct 420
aatgaancaa gtttttgng ctcctnttat ctgctgcgct gttggatcaa tggcggcatt 480

agttgtcaat ccatttgacg

500

<210> 334

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 334

ctcctgcacg ctttcaaatt tcacactgat ctattaatac agncttgaat cacatacaga 60
ctcctcatat gtataatcac atataatgnt tcataagcct taattgaaat ggaattttaa 120
ttgaaatggg gatccatgat ggaagtgatg gaaagggtgaa ccaccgcccc ctctgtgatt 180
atttgcagat tctggatcta aaggatcttc accgttgtca aactgagctc ttttctcagg 240
atcagtaaga acctcttttag cagcagcaat atctataaat ttattctctg ctattttctt 300
ttcatcatct ttgaaattat caggatgccca tttttgtgct gcttttcgat aagctttaat 360
gatctcttgc tttgtagctg ntctttttac acctagaaat ttataataan ctcttctctc 420
acttgnnttg taacctgag ccttcaaaag cccatcttct gctctctgac atgctcattt 480
atttccaaag ctgatttata 500

<210> 335

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 335

naagacgttt tgaaacctnc ntttaaacca tttgggttgg gggctggggg aanttttaag 60
gaaaccttn caaaaatggg cacctcaact ggtgcaaac gtttttggct tttnttgggn 120
ccgtggtctt tagacaaacg tgccagaggg cttttcacga aaaccaaggg gagggcattg 180
tcattcctga gaagggcgca agcaaaaagt tctcaagggc agagttattg cagttggccc 240
ggcaaagaaa ccaactggtg aacatgtgcc cctaggaatc aaaagtgggtg acatggtttg 300
ctgccgaatc cgaggcccaa aagttgagct cgaagagaac aagaattcct tattcaaaga 360
atccgatatn cttgccaaagt tggatatcga cgaataaatt gccnaaaatt taccatcttt 420
cacaatttnc ccaacacaaa ctgnattcga agctgttgct tnttatnaaa gtagcaatgg 480
tttttnnttg ngggtctctt 500

<210> 336

<211> 482

<212> DNA

<213> *Ctenocephalides felis*

<400> 336

ttatataata caatttatta taaaattaac gntctaantg tatcccggtg aattaattat 60
tttaataacg attttttact tttttataat atatatgtat tatattccct attatataat 120
acaatttatt ataaaattaa ctatctaata tatcccggtg aattaattat tttaataacg 180
atttttttta ctttttataa tatatatgta ttatattccc tattatataa tacaatttat 240
tataaaatta actatctaata atatcccggtg taattaatta ttttaataac gattttttac 300

ttttttataa tatatatgta ttatatgtga aaaatgtaaa aaagtataat ttagttgcgt 360
gaattcgtgc agttcaccgc aaatgcanta ttgccggaaa taggagcaga tcccggtaaa 420
gaatnctgta gccagacaa gtggcgctgt caaagtggat atctcagtgc ccactaagaa 480
ag 482

<210> 337
<211> 418
<212> DNA
<213> Ctenocephalides felis

<400> 337
ttgacaagca aaataaaata catcaacgtt gttttttacg gccacttgca agttatttaa 60
tggttccatt ttttgaacaa ctccatttgt tccaagaacc aatgatgttt catatgtttg 120
tgatggttgt aaattcggaa cttgtaatgg tgcaccaggt gccagaccaa agctgttttt 180
attcaactgt atggcaaaac cactcatagc ttgcattgct ttgttgggtg agctcatgtc 240
catgtaaatc tgtccacttc tcctggagaa tgttccatat atttccaaac ctttgccttt 300
ttcagctggc aaccacaatg cttttggtat aacaaaaggg ccagctgatc ccacagagaa 360
tattttctccc agaagtccag agttaaccgat gttattaagt anaattgaca tctgatgt 418

<210> 338
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 338
gtontattcc attattccat gcacacaata ttcaggcgaa tgagcctgct ttaagcactc 60
taatttgttc aaagtaaagc taccggccca cctcgacact cggtagagag caccgtggta 120
ggattttgag ttgggcccgc ttttgacagg ctaagccac cggtaggacg tcccacagac 180
atgccagttg aacaccgcga gcggtgaacc gacagtgtgg gacacagatt caactacgag 240
ctttttaacc gcaacaactt taatatacgc tattagagct ggaattaccg cggctgctgg 300
caccagactg gccctctaag agatcctcgt taaaggattt aaagtgtact cattccgatt 360
acggggcctc ggatgagtc cgtatcgta tttttcgtca ctacctccc gtgccgggag 420
tggttaattt gcgcgcctgc tgcttccttg gatgtggtag ccgttctcag gctccctctc 480
cggaatcgaa ccctgattcc ccgtcccgt acaaccatgg agtcgcagaa ctacctcgac 540
agtgataag 549

<210> 339
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 339
aatctctgaa actaattacg agtgcagtag caattctttt ttactaaaa gaaaaataac 60
tttgaacaa aatggcaagc acaagacccc acaggagagaa catgacagac gaacagattg 120
cagaattccg tgaagctttt gctttgtacg acaaaagacgg agatgggtgcg atatcagccg 180

ccgaattagg aactgtcatg agggccttgg gtcaaactcc ttccgaagcc gaacttaaag 240
gatacgtcaa ggataatagc gtggccatga ccgtagattt tccaacattt ttgacaatga 300
tggtcgtca gatgcaggaa ggcagcagtg ttgatgaaat ccggaagcc ttccgggttt 360
ttgataaaga tggtaatggc cgaatgtctg ttgcggaatt gagacacatt ttaacatctc 420
ttggagaacg cttaacagat aatgagggtg cgcaatgatc cgagaagcag acgtagataa 480
tgatgggatg tagattatga gcaatttatt caagcatgcg atgagttcat aatataaaaa 540
taataataa 549

<210> 340

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 340

gacnntataa caaaccgaga ttatttttga aatnaaaggt attaggaaaa attattgata 60
ataacataaa agtctaaatg cttttataat atgacagcaa tgcgtactgc aatgaatgtt 120
gtgtatacag ttttgtggat totattaatt tcacaaggta cccaaagcgt tgaattaact 180
tttgaactac cggataatgc aaaagaatgc ttttaccag atattcaaaa aaatacaagc 240
gtcaccttag agtttcaggt cgtcacgggc ggtcagtatg atgttgatgt aacattagaa 300
agcccaaata agcaaattat atatagtcaa gtgaaaaccc aatttgattc gcatcatttc 360
actgcaccga taagtgggtg ttaogttgct tgtttcagta atgaattttc cacgttctca 420
cacaaattgg ttatatggac tttcaagttg gtgatgaaca gctttaccgc gtgtcgggga 480
gcatgctaca gtcttaccga acttgaatct ttgccaagag attcatcgaa gtttgccagt 540
ttctcaatt 549

<210> 341

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 341

ataccaaata aagtttggtt gtgagaaaa gtatttgcatt aatttggtt atttccacta 60
tatcagatta ctcatgtgaa ccatgtctct cgtaccattg ttgtttcacg actggtggga 120
ggattacgac cacccaatgc gtcttatgga ccaacatttt ggaatgggccc taaatcgtaa 180
tgatcttatt actaatctaa gggccactcc atcactcttc cgtggcgggtt attacagacc 240
ttggaggaat gaaattactg ctgacgattc ttcattcaact atcggttgctg acaaagataa 300
attccaagtg acttttagacg ttcaacaatt caaaccaaaa gaaatcacgc taaaaacaaa 360
ggacaattgc gtaatcgctg aaggcaaaaa cgaagaaaaa caagatgaac acggatacat 420
ttcccgctcat tttgttcgac gatatgtctt gccagaaatc acgatgctgc cgatgtagta 480
tcgagtttgc ctcggttgga gtattgccat acagcgccaa gaaggccttc agtgagcaga 540
cgagtggcc 549

<210> 342

<211> 383

<212> DNA

<213> Ctenocephalides felis

<400> 342

agcnttaaat aacaatttca aattcaatat gaggaattta gtggttttcg ggtagtggtt 60
ggtagttttta tttgttggtta caatggcaga agacacacca gatgaaaatg agaaattcga 120
agtgggaatg tcagagggtt ctttgaatga tgtagagcca gcaccacgtg tagtatgcc 180
acttgaggga aacagattat gcaatgctcg gtgcatatct ctaggaaaaa gaggaggctc 240
gtgcaaaaaa ggaacttggt actgcagaaa ttgaagaaat ttaatatagc ataatatatt 300
agataaactt tgaataaaac cgtgttaaaa attttgcgca aaatatataa tataacctaca 360
aattaaaaaa aaaaaaaaaa aaa 383

<210> 343

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 343

aacagctggt tgtgccgtac ggtgggtcccc gcgtgtgtag cattgtagca gtatcaaagc 60
gaagctcgat cgatccggtc gagacgtgaa gcccgcgca taccgccgct tcagagacaa 120
tttacagact cggaggttaa tatcacgaaa ccactttgtg ttcgacttct cagtacgaca 180
gtgtcggtca tttcaaacgc gcgttggtgtg tgtccatcta tcatttacaa cgggggttct 240
gatttttoga aggttcagta ataattttcg tatttcgtta tggcgatgag atgtgtagga 300
ttgctcgta agagcaccat ggtccagtc ggacagcgca ggctgatatc ccaatcagct 360
gttgctatga acaggatgct tcaggattca ccaaacgctc acctagataa atcaatcttg 420
caaaggtaca ctgctcttct caagacgac ggtaacgcag gtcacttacg tgtggatoga 480
tggacggtga gtacttgccg ctaaggacgt gtcttgaatt aacctccaaa ccagaaactg 540
caaatggac 549

<210> 344

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 344

tatcaactta aataccagca tcaaaatggt gtcagctggc atgacgtgcg tgaagtattt 60
attgttctgc ttcaatttaa tatttgctct ttcaggacta accattctta ttgttgagc 120
cctaattcaa tcatcttttc accactattc tgaatttgta aatgctagtg tctggtcagc 180
tcctgtcttg cttattgtaa ttggcgcaat tgcgtttggt atcgcatctc tcggatgctg 240
tggtgctgtg aaggagagca attgcatgat ctataccttt gcagtatttc tcatttggtat 300
atttatattg gaattatctg ctggaatagc tggctatata aagcatggtg aacttgctga 360
aaccttggaa aataatttta ataccagtat gaattcctat attgatgata agcaaacacg 420
tgcaacatgg gacgttatcc aggaagatct cgattgctgt ggtatgaatg gccaaagtac 480
tggaaaaaag tttttaataa tgaccaattc caaaatcctg tgtgatgagc tccaaagtga 540
tttgaatgc 549

<210> 345
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 345
 ggcttattga cgtaggtata acctcggttc taattcatac tgaattttctc aatttatcag 60
 tataattaaa gatattgttc atctgctttc cagggtgtacg tcttcagatc tgtaagtaaa 120
 aatatttttac aagccgtccg agttcattgt gttcattoga gctgtgttag cattgcactt 180
 caattcctca agtttcatac ataattcaaa atggctcgta ctaagcaaac tgctcgtaag 240
 tcaaccggag gaaaagctcc acgaaaacaa ttagccacaa aggetgcgcg taaaagtgtc 300
 ccatccactg gaggcgtcaa gaaaccccat cgttatcgtc cagggtactgt cgcccttcgt 360
 gaaatccgtc gttatcagaa atctactgaa ttgtgatccg taaattacct ttccaacggt 420
 ggtgagagaa atnccagga tttcaagaca gatttgcgtt ttcaatcact gctattgcgc 480
 tctgcaggaa gcagtgaagc ttcctctagn ttgttgaaga caccatttgg tgccttcagt 540
 ctagaggtta 549

<210> 346
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 346
 gacatcatta ctggtgatga gatgttctca gacacatata aaataaagtt ggtcgatgaa 60
 gttttgtacg aagtgaccgg caaattgggt tcaaggtctc aaggggatat ccaaattgaa 120
 ggtttcaacc catctgctga agaggctgat gaaggaactg aaacagccac ggaatctggt 180
 gttgatgtgg tcttaaatca ccgcctttgt gaaacttttg ccttctcaga taaaaaatca 240
 tacactcttt atttaaaaga ttatatgaaa aaattggtgg cgaaattaga ggagaaatca 300
 ccagaacaag ttgaggtatt caaaacaaac atgaacaaag tcatgaaaga aatattaagc 360
 cgtttttaag aaatgcaaat gttcactggt gaatcaatgg attgtgatgg catggttgct 420
 cttatggaat atcgtgaaat agatggtgaa tctgtccaat tctgatgttc tttaaacatg 480
 gctagaagaa gagaaatttg aacaatacac tatttattat gtgaaactca tcttaataata 540
 ctgattttgn 550

<210> 347
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 347
 agaaaatcaa cttgtgtcac ggcaactggg acagtatcac ctatgaaaaa tgaatttggg 60
 aaagtgtgtt gtggtgatcc tgtgtctgtg cttggttgaa agttcaattt gtgccactgt 120
 catctcaaaa gatgatcagg atttatatga gctatctatc atacatctga atgattttca 180
 cgccagattt gaagagataa cacctcaatc aacagcttgt aataataaag aagaatgtat 240
 cggtggaata gcgctgtctc ataccgaagt aaagcgtctg caaaatgaaa ggacaaatcc 300
 aattttcttg aacgcaggcg acaattttca gggcactctt tgggtacaaca tacatcgatg 360

gaatgtcacg cagtactttt taaataaatt taagactgat gctgtgacat tgggtaatca 420
tgaatttgac cataagattg aaggtgtggt tccattcatg gggtccatcg aagcacctat 480
cgtagtgtgc aacattgatg actcgcaaga ccacatttca gggcaaatca aaaagacatt 540
gtttagacgc 550

<210> 348

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 348

ggaacgtgca aagaaagatc cccaatttta tatgctttgg tctgctgatg atcagcctga 60
acatatgctg agaattcata aacacattgc ggcgcgaaa agacacttgc caggatcatgc 120
tgaaagttag aacccacctc cagaatatct atttgacaag aaagaattga agcaatggaa 180
taaacaaaag gacacaccat ggaagcgtaa actacatttt gtacctgaaa aatataattc 240
actacgcgaa gtaccatcat attcaagata cattaaggaa cgtttcttac gttgtcttga 300
cctttactta tgtoccagag ctataaaaat gagattgact attgaaccgg aagctttggt 360
accacaacta ccaagtccca aagatttgca gccattccct actgtcaaag tctcgtctat 420
aagggacata aagacatgat aaggtgcatg acaatagatt gcttggacaa tatctggcta 480
cagggctctga tgacatgcag taaaagttgg gaagtttgca ccgccgtggt gccacaatat 540
atgtccggga 550

<210> 349

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 349

ggaacatttta ttcgtgaagc tagcactagt catgcattgt ttggtaaaca tattctcact 60
gtagacatgt tcaacaaaga acaattaaat gatattttca atttggctga aaatatcaaa 120
gctcgcgttg tcaaagatcg accagtagat gaaattttgc gcggttaagg aatggcttct 180
atcttttatg aagttagtac tcgtaccagc tgcagctttg ctgctgcaat gcagaggctc 240
ggaggccgag tgatccatat agatgaaact agctcatctg ctaagaaagg cgaaactcta 300
gaagattctg tttctgtcat ggctggttac tcggatgtaa ttgtacttcg ccatccagaa 360
ccaggagcag tagctaaagt ggctgcgcac tgtagaaagc cattaataaa tgctggcgat 420
ggagttggcg aacatccaac tcagcgtgct tgatatattt actattcgtg aagaaatggt 480
ccgttatggt tgactatact atggncggac ttgaaaatgc gtctgacctc attgntcgtt 540
ggtgcgtat 549

<210> 350

<211> 536

<212> DNA

<213> Ctenocephalides felis

<400> 350

cgattccgaa gtgcaagagg catacgaata tctgaaatcg gatgaatttg ccaaagcctg 60
gaagtatgct gtcgaacatc cggatatattt ggaaattctg gattatttac aggaaagcgg 120
cctggacatt gtagagcttt tgaacaaaat tgctgactat ttaggtctcc agacottgga 180
accaagatcc atcaattaca acgatgaaat tccaatttcc acaggtgggc tcaaggaatt 240
ggtgaataaa attaaggaca tgttacctt aaccgatttt atgatcttat tcttcgacaa 300
aatggacaat agcgaatgact tccagaatct aatgaccgcg attcaatcta ctgattttca 360
aaaaattatc gattttgtag aaaactctcc agaaattttg gctctaattg ataaattgga 420
aaatttaggc tttgatgttg acacaataat cgatttcacg aaaagcttct tcggtggcct 480
aataaaccgg atgtgatgaa ataaatatag aatattcgta aaaaaaaaaa aaaaaa 536

<210> 351

<211> 284

<212> DNA

<213> Ctenocephalides felis

<400> 351

cctncctcct catttaaaca atgcttgtga tcatttgaac gatggcgccc aatgcccctt 60
gaagaaagggt gaccaagtta cttacaatct taaagttcca gtactgcaat cttacccttc 120
aataaacttg gacttgatgg tgcacttgtt ggatgacagt aatgagtcag tagtatgttt 180
caagatcccc tgcaagggtg tataagtagc caaaataatt tttgatttgg tattgatgga 240
acaaaattaa aataataaaa ttgaaaaaaaa aaaaaaaaaa aaaa 284

<210> 352

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 352

cttaagtgtt cagaatgcca caatcaatgc atgtaaatgg ctatgccaac ggccacagcg 60
gttccttcga tatggaggat ggatctgttt tcttgtttac ttcggaatct gttggcgaag 120
gacatccaga taaaatgtgt gatcagatca gtgatgctgt attagatgct cacttgaagc 180
aagatccaaa tgctaaagtt gottgtgaaa ctgttactaa aactggaatg gttctcctct 240
gtggagaaat aacttccaat gctgtagttg attatcaaaa agtggttcgt gacacgggtga 300
aacacattgg ttatgatgat tcatctaaag gggttgactg gcgtaccctt aatcttctgg 360
ttgcattgga acagcagagt ccagacattg cgggtgggtg acacatgaat aggcaagaac 420
atgacatagg tgctggggat caggttttga ctataggacc tgcaatgtct acttgcatg 480
atctcagcac ctatatagca gctggagtca tgacatcgaa ggatgaaaaa tgggcangaa 540
acagggtta 549

<210> 353

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 353

ttttacatca ggagtggtg cagcctgcat gttctttgtt tacaataaac gtcacaattt 60
 aatcgtgtct gcagtcctca gctctgttat atcttggtga aatgcagcgt tggactgtct 120
 tatcaccgag gtgtttccaa caaatttgag ggctactggg gtggcaatat ctatggtagc 180
 tgctcgactt ggaggcataa ttggcaatgt ggtaattgca actttattag acatgtattg 240
 tccagccccc acatttattg tagcactact attggctgga ggtggtctga tgtgtctatt 300
 tttgcctaac acgaccaggg aaccactttc ataagaaaat ctcatcgtat aacagtcggg 360
 cgatataata aatatattta ttcttctgct ccatcccaaa aacttgattt tgaatttaaa 420
 tacttataaa ataatgagtc ttttcttata aaaatgtata taaataatta tcctanagtc 480
 gttcattaat tanttcatta atgatgactt cgttattaat taataactan taccnancat 540
 cnanaaaaaa 550

<210> 354

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 354

taatgtcgta gaaagggtgaa aaactgcgag ttgtttgcac agttgtaggc aaacctacac 60
 caacagtgtc atggaaaagt attaatgaga cttatgacga atcatccgat cgaatcaaatt 120
 tgtaggatca tgacaatata ccaaattctg ctttggaatt tgatttggct gaaaaaagcg 180
 atcgaggaga atatacatgt attgctacta atcaaggcat tgggaattact gtttaattcta 240
 caaccttggt tcgagttcaa gataaattag ctgctttgtg gccatttttg ggtatctgtg 300
 ctgaagtaaat aattttatgc gcgattattc tcatattatga aaagaaacgc aacaaagctg 360
 aaatggagga gagtataca gatcaagatn cagatcgaaa aaatactcct gtcacatgaa 420
 ggactgtgt gaggcataag aagtaancaa aanttaatcn gttgaataaaa agttatgccc 480
 ngagtgaagt atcaaagn 498

<210> 355

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 355

tattgttgga tggatggtga ctttcatcag ctgctttgag gatatcgtga gcggcaactta 60
 acataactac atatccatag ttgttgcata atccaaggat ccagtaggcc accagggtccc 120
 gccagaggcc tctgtctttt aaaggagtgg attcgtgagg cgattctgga ttttctgttg 180
 gagtcatcat tttaaaaatc aagtaaaaat cacagatgta tgcttacagg ttaatttaatt 240
 ttatggagca gaggttctcc accaaaaatc gaagataact taaatattgt aaacaagacc 300
 acacttcaag tctggttaaa atttaaccaa tgtatgatgt octgaatgta gatttctgct 360
 agtccaaata atgtttcaat aaattgtaat tcagcacaaa ctattctaag ttcactaggc 420
 ttctccaaca atctaaatcc aactcattat cttcttctta atatgcacca agatcagctc 480
 tttggtcatt tttagcta 498

<210> 356

<211> 269

<212> DNA

<213> Ctenocephalides felis

<400> 356

gtgttgagtg gtatcaaaac ttggtcaccc agtttatgag agaagtcttg ccacaacatt 60
tccaaagcat ttgtctgggt tagcaaaaca tcgtgccac tccatgggct ttcgtagact 120
tcagatactg cttccattaa agacttggaa gcactttgca cagctctaata acatcttatg 180
tagttattaa attccttttg cagtctatta gcactatatt gctgcctggg gaagttttgt 240
aatgctcat caaaaatatc atctgcggg 269

<210> 357

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 357

taatgtcgta gaaggtgaaa aactgcgagt tgtttgcaca gttgtaggca aacctacacc 60
aacagtgtca tggaaagtta ttaatgagac ttatgacgaa tcatccgac gaatcaaatt 120
gttagatcat gacaatatac caaattctgc tttggaaatt gatttggctg aaaaaagcga 180
tcgaggagaa tatacatgta ttgctactaa tcaaggcatt ggaattactg ttaattctac 240
aaccttggtt cgagttcaag ataaattagc tgctttgtgg ccatttttgg gtatctgtgc 300
tgaagtaata attttatgcg cgattattct catttatgaa aagaaacgca acaaagctga 360
aatggaggag agtgatacag atcaaagtcc agatcgaaaa aatactcctg atcacatgaa 420
ggacactgat gtgaggcata ggaagtaaac caaaaattta atctagttga ataaaagtta 480
atgcaccaga gtaggaag 498

<210> 358

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 358

cttggcatct agttttgtaa attcagtttg gctgtttatt ttgctgcgat atttcaatgg 60
atttttctgta tctggaggaa gtgcaacaat atatgcata ttaggagaat ttcataatcc 120
taggcacgc agcagggcta ttatgggagc gtcaagcatc ttcggatttg cgtgtcttgc 180
attaccgacg gttgcatggg taattataaa tcagaaatgg tcattctata ttgacttttt 240
gggatataca tacaagccot ggaggttgta tatggttgca tgtggtttgc catcactgct 300
ttgttgtttt gctttgtgga aattaccaga aagtcccaa tttttgatga atcagggaag 360
aaacgaagaa gctcgtcaaa ttattgccaa aatgtataga attaatactg gtaaaccaga 420
aagtgaattc cccgtatcat caatcttaga tgaatatcca ggagtggatg gtgaaaatac 480
aaataaaaca aagaaatc 498

<210> 359

<211> 749

<212> DNA

<213> Ctenocephalides felis

<400> 359

```
ccatTTGcaa ggaattatca gtgtaatcca aaaacaatcc tgtccgcacg caagcaaagg 60
gttgcgatgg tcctggctct ggtggcggtg gtggagggtg agctgtcgcc aagcactcgg 120
ataaaggcgc ttgcacgcat tgttggtaaa gcgcgctgaa gtatgtctgt ccggcgcatg 180
taaagcgacc cacgttgaaa tttcctccag agagtctcac acattcaaaa tatactttgc 240
atgttttgtc tgctggatct gcaaattgagc cgctctgcac gcagttgtat atggggcggcg 300
gcgtaggtgg ttgccaaggc gctggaggat ttcttaggca ctccgaaagg gaagcgacca 360
cacattgctg atacgtgctg ctgaagtaag tagaaccagg acaattgtaa cgcgctacac 420
tgaatcctcc gcctgctttc aaagcacatt tgtagtatcc tttgcaagtg ctgtcatagg 480
gatctataaa catccctttc tgcaacgcatg aaaaaagaag cggcggtgct ggtgtaattg 540
gccgtagtcg tagtaatcgg acaattggag gangcanang tgtaattaaa cattccgaat 600
atgtagggcc cacacatntt tggtaaaact cacttatatc caagttncat tgggcntaaa 660
aaatganccg ttttgcanag caccctttta aaccaagntt gnacttggag tacctttggg 720
cgggacacnc ttaacccaaa tnttgcnga 749
```

<210> 360

<211> 450

<212> DNA

<213> Ctenocephalides felis

<400> 360

```
agaattagaa ttgacacaaa atgctttagt gaangaaatg aaattaaaat tgatgattat 60
tgatngattt tataccaaat gaaatcaaag ataaatttta tgcaaatgca aagtttgatg 120
aagatttgga catatggaca gttgcaataa ctaaagaaat gttgccacca agacgaccga 180
tatccaaacc aggacggcgc aggcctattt ctgaggtctc tttgggttaa agacattacc 240
ctggcttggc aggtatacgt cacagagggt agaataattt tgagtatgac ttgggcatgc 300
catttcgcac cacatttgaa tacgaagccc caacagtgtc ccagcgtta caatcagtat 360
tagaagatgc tttacaacca gaaggagatt tagaaatcac ttcaccccggt caaccgtctt 420
cagactgccc aaatcatgaa aagacctagt 450
```

<210> 361

<211> 426

<212> DNA

<213> Ctenocephalides felis

<400> 361

```
cttgatagaa gaatttatta ttaatacata ttatatatat tgaatataga aagcaaattc 60
attataaaaa tattaatgca cttatgtcaa tagtttcata tagtattgcc aggaaaagct 120
aagtattaag tataatatat ttagttattc ttaaacatat gttgttgttg ttttgataaa 180
gctgtgtctt aaaatgactt tatatacagc aattatcttc aataatcctt tccacaattt 240
tgctcgggtg gtttttagttt gctcaaatct atgggtgtat tgttttccac atatgtotta 300
atctctttca tcaattccga tgatgggttt tgctcacgtg tgagaatcca agctaattcc 360
atctttcctc gtggatgaat tgtgcagctc cacacaatag caaatttatc aaaatcgctt 420
ttagt 426
```

<210> 362
 <211> 420
 <212> DNA
 <213> Ctenocephalides felis

<400> 362
 ctgaattcca gatgtagtga agtaaggaat ctcaaatttc acttgtattg ggggttttcc 60
 ttccgtatct tcacattcca cacttggcaa tccaaaatgt gctctcatta ggtattcttt 120
 accacctgga aatgatttta tggaccaagt aaatgcattc aaatcaggag catatttaac 180
 acttccaatt gttgttttta acttcgggga atctgcatca gctggtacag gaatcagtat 240
 ctccacatta tttgcagttg accgtctttt aaattgtgac ttagctttga tcatgtattc 300
 tacacggctg tgtgcgtgcc tttcaattac tgattcaatc catatcaagg gttttacatg 360
 tgtgttaagt cgataagaca ttaactcaaa ctctccatca ggaggaataa atgatatggt 420

<210> 363
 <211> 218
 <212> DNA
 <213> Ctenocephalides felis

<400> 363
 cctggtggtt tntggtagt ggggttttgg tggttctaataa gggaggattt ggtggaggat 60
 tttggettta gggntgggaa tgggganggt tccattggtt tcattcangt ttgaacttgg 120
 agcanttgng gatgggctta tttcatcatt cggttgantgn ggntgggcgt ctttaacgtc 180
 actggtaaataa aaacgcctgg gcccanggtc aagtctgt 218

<210> 364
 <211> 432
 <212> DNA
 <213> Ctenocephalides felis

<400> 364
 attccaaata tcaactataag agctaaatag ccttccgtca ggtctccatt attaacotgg 60
 tcgaccacaa aataaatatt gattgcaatt actaaaatcg atagaaggat tgcaacgact 120
 gaattaaccg ctccattaac gaattctccc atgatatagcag cattgctggt aaacgctata 180
 gtcggtaggg tcgcaaaagg tagttgtaag gacatcactg cattcagaag gtcgttcata 240
 cccgataggt cttcgatgct attgaaaaat gccatcagaa atgttggtat gatggcaatc 300
 attcgggtga ataggatcct cttccagcga gaccattgta ggttgaggaa accctccatg 360
 gcgaattgac cagcacaaagt cccagtcatt gtagaacttt gaccggctgn caatatttcg 420
 acagnccaaa tg 432

<210> 365
 <211> 390
 <212> DNA

<213> Ctenocephalides felis

<400> 365

```

aaatctccgc cctgcaatct tccccaaacc aaccaaccga tcaaatagga agccaactcc 60
aagctgtcca agttctccca acaaacctcg gtttgacac acacagacac caaaacaact 120
atgctgtacc ccaacaaacc aactttggat cctttcacca tcaccaacaa atcgacacca 180
caaattattgg gggctactac tccccccacg gaattctacc aatctactac gataatgggc 240
acggattgtt gaattttaat cctttgaagc ctcaaaaacta ctacgccagc tattatcctt 300
actaccagaa cagcagacag tattatcctt acaatttttg atattattat catcacagtt 360
tgccgaattc gcactactac aggcagcagt                                     390

```

<210> 366

<211> 376

<212> DNA

<213> Ctenocephalides felis

<400> 366

```

aatacaagtg aactcctatt gacttgggaa ccaactgcac cagtaactnn agcaccagag 60
ctacatttga ccgaatatgt ccttactgac atgtgggtaa atgaaacagt tgtcaaggct 120
gattttggatg acctgagaca cggagcattt ggtgggacat acagtgcctt aagtttcacg 180
attcaaataa gtctgtgaaat gggttactat ttaatggatt actttttgcc atcagtaatg 240
atcgtgtcgt gttcctgggt aagtttttgg ctggcagcag accaatcagc acccagagtc 300
accttaggca caagcaccat gttgtcattt atcacattag caagtaccca aggaaaaact 360
ttacccaaag tatcgt                                     376

```

<210> 367

<211> 377

<212> DNA

<213> Ctenocephalides felis

<400> 367

```

nctccacagt tccctgcatt gggccccatt cttacatggc gatgggacac aagaaggtct 60
acantcnttt atgatttctg ataaatgggt tgacatataa ctataaatat ccaatatttc 120
accattgacg accaaaccgn ggaagcagcc gatcaaccct tgcttttatag ttgatttttt 180
tagatgatcc gccggagctc accgatgaac atgctttctt caaatggcca aactgctcct 240
ctgctccaaa tcaaccatca tataatctgt atttatcatg aatctgcatg atattcgttg 300
naatcgatcc aaattttatg ccattctccg ccatttaatt tctatttgaa tttatttcaa 360
tttcttctga cttcctg                                     377

```

<210> 368

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 368

```

atatatctta catogaatct aataacattn aagagttatt aattttcatg tcgatgnntt 60
agaaaatgat tcagtagcaa cttctgaatt ttctttgtaa tcgataatac tttctcaaag 120
tataattgca tttcacaaca cactgacgaa atatgggtat ggtccatag aagcaatgct 180
cgttcttcta tccacttgct tctgataaat gttcgggtata aagaatgcaa tcaactccaca 240
tgctatcaga gatgttcctg atattaaaaa tgttaaactg caattataat ctagaattat 300
tcctacaaca ttgcttccaa caacacttcc taatcgaccc atcattaaag atatacatat 360
tgccattgcc ctgagttgtg tagggtacag atctactaat gccgcgttta ccactgtcac 420
agcaattccg caaaccagca accacaaata taaatatgat gctattgtta aatgttcaat 480
aatgcacaa attattcc 498

```

<210> 369

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 369

```

aacaaaacgg ttttaattgaa tctgtagttt ggaaattaat aaatatggac agtaacacgg 60
ggattcaaat aatagcttcc aaagaaccaa aaccaaggca gtttgaagat gcgttggcac 120
tcacagggtt tggaatttc aattaccttc ttctggctgt gagtggatgc gtattagtat 180
gtgttttgat ggaaactctt ggaatgagtt ttgtcgttcc ttcagcacia tgtgatctgg 240
aattaacaac aaaacaaaaa ggaatattaa gcgctatagc ttttataggt attataagca 300
gttcacattt atggggattt ttagccgata cgagaggag gcggaaagt attatgcta 360
cacttcttct tgcatttttt tgtaccttg catctagttt tgtaaattca gtttggctgt 420
tattttgctg cgatatttca atggattttt cgtatctgga ggaagtgcac aatatatgca 480
tatttaggag aattcataat cctaggcatc gcacagggtc attatggggc gtcaagcatc 540
ttcgatttg 549

```

<210> 370

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 370

```

cctttaagat tcgatgataa tatacaancg gccacagtgg ctgattatgg acaacaacca 60
ctcgctggca catcagcagt agtcgcagga tgggaaagat tcgagacagg actagacatg 120
gcagggtgatt tgagaaaaat caacgtttca atagtcgacg agtttgattg cttcctattt 180
tacatagaag aacaagaatt tacaaaatat cagctttgtg cctcctcttc taaaaaacat 240
atgggcgctt gtaaagggtga tattgnatca ccattagccg tagatgggtct tatagtcgga 300
ttatattctt ggtcaggaaa atgtggcgac ccgagaaac cagaagttaa ttcaaattta 360
gctgaatatt tcatgtggat cgaccattct ataaaaatat tcacctaat taataactat 420
atgctttgca atcatttatt tatttgacct nggncgggac acccttagcc gnatttgnag 480
atattcatca cacttggg 498

```

<210> 371

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 371

tataaattgt atatatgagc aatgaatcaa tttttttaaa catttttgatt ttccctggggcc 60
ctgtagcaaaa cttgatattt gacaactgaa ccatcaaagc tatatatataa tattaatcga 120
attttctataa atcttaataa catattttga attaaagata gtaaattaac aatggcagcg 180
ggggctgagc ctttgtcact agctaaagat gtcaaaagag cctgcgagct ccttgataaa 240
ttacaaatga ctggagaaat accagccaca aaaatagctg ccttacaaaa agttttacaa 300
tccgattttt ttaactgcgt tcgcgaagtt tatgaacata tttatgaaac agtagatatt 360
caaggttctg aagacataag agcatcagca acagcaaagg ctactgttgc agcttttgca 420
gccagtggag ccatgccatc caogagttgt tgaattccta agacagatga aggccttaggg 480
tttaatgtat ggggtgaaaa gaacaaaatt ctccatatca tatcaagaat atccagtgg 540
gagctgtcg 549

<210> 372

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 372

gcttatgttt gtttttattt tgacgttgct aaaattttag ctttaatggt tggtttcttg 60
tgataaatta gtttttattt aaaggctagc gcataataat aatgatgcat ctgagcgctg 120
acatatctag tgcacttcag caacttgaga gcatcaagac agcaatagat gactcccatg 180
atccaaaact tcagctcagt actaatgaag atttgatgat gataataagc ctattgcaag 240
atccagtttt tcgaagcatt gttactactc aagattcact aggtgaattg aattcccaaa 300
taacacaaca tccatcaata ttaccaggag attttgatat aactacttca ggtgatctaa 360
ttctgcggtg ccccttcttc ttgatttata tgataatgag tacactgatg aacaaagagt 420
accctctgac aattaagtcc aggtagccct cagaggttag gtatagcatc ggtnggggca 480
gtcangggaa cattacattc atgaagggat caatntngca atgaggcaac cntgatggat 540
attcccaca 549

<210> 373

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 373

gcaaaatatg atcaatactg tatatttaac atacacgcgc acatatgcat atatatatgt 60
atatatatat atatatatat atatacttat atgcatataa agcaatatca acatctattt 120
agttttcgat attctgcaaa taataatgat cttaaattac aaatagaata ttacatttaa 180
cagctaagaa tttgcagttt cacaaatact gccagtcacc aaatgggtatt cagaatatca 240
ttcaaaaaca ttttagccaat aatgtaagat gaaatacaga tgattataga aacattcaga 300
atttatacac tataaatatg aacattaata ctatgtacca cttaaaatgt gaaatctgaa 360
tacgtcattt gatgactgcg tgtaacaaga acttgttata gattataaca attataattt 420
aatatatott tttcattttg taacccccaa agagcattcc tcgcgtcttg cagcacttgn 480

ggggtgtggt agtgtgatga tgatcatgta gatggatgatc cttatatcac ggttgggtga 540
cgagattat 549

<210> 374
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 374
atcaaacaaa gaaaatgaaa accagtgttg taaaacatga aactgaggat actataaaaa 60
gtgaacaaaag cgatcaatca attattgaaa tagatgatta ataatttgga aaactatttg 120
aagacgatgt aacaatataa gatttgtgac gttgaatcac atatatgtcg gtaaatgatg 180
ttttcctgtt tcggaaaaac tcaactagta tttatttgcc atcatttaca aagccgtggg 240
aatagctaaa cctaataagag tctccattcc atttgaagc aatttataca taccacata 300
tatatgcaaa tatatatata tatatatata tatatatata tattatatttt 360
aaatgctgga ccattgttct tctaaatntg agtttaatgt ngcattcttt cgatatcgaa 420
tcattagttt tatgttttta taagggtgtat aattatttca taagactgtc actggagaaa 480
tatgttattt attaatataa tattaattaa atatatatcat taccactat gtataaatgt 540
tcataaatc 549

<210> 375
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 375
cttaggaatt gtggcagcaa gtccagccat atatatgtca tttacacatt gtattcgcaa 60
atcgtatttag tgtgtaagtt ctgtattttt tttctatatt tgaattatta ggaatgatca 120
ccaacattgt gtatattcat gtcaaatata ttgaaaatgt tctattttaga tgtgaaactt 180
gacatgatgtt aatttaattt aaatatgtat tttactttgt tcatgataaa ggcatttata 240
tttaaaaaaa tatattttac tatgtgtatg taagtataca tgtacatgca tacatacata 300
tatatatata tatatatata tatatatata tgatggtaga ggcttggatt tgtaaatatt 360
ttgaagagct tcgaacaaaag aatccaaagg taataaaaaa ccacaaagtt tgttgaaaca 420
atTTTTTTTat ttactgtcgc gtttcggaac taagtatggt cacctgcagg acattgcaag 480
aacatcatct taaacaagca atatacttag tagaataaaa tgctggattt tataaatgac 540
aaattgnga 549

<210> 376
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 376
atggaatagt gctaacaaa gcaaagataa accaatctcg cgtcgccac atcagtaacg 60
gcataagaat cattccactg gtccaccga tggactgcat catggcaatg tgtgctctat 120

099193 9651650
T0T2T" 9651650

```
cttcacttct ggatatttcc atcgcaatta tcaaagggct ttgaaaaaca gatgtagatg 180
ttagtgaacc aagaaaagcc gctgttataa aaacaataaa ccaactggaa gtaaagtctg 240
taattagtct tccggtgacg attgtgatga gacttaagta aaatactggg cttcttccaa 300
tcctatctcc taattgtcca aaaataaatg tgcctatgac ttcgctgca cgtccaatag 360
caaagtatt agttacatag agttctctat cacaaacca gtcttgatct gacggagccg 420
ttgataaata catgttctgt catattcata accatgctga caaggtatta tttgactttc 480
aatcttattt gtctcttc 498
```

<210> 377

<211> 598

<212> DNA

<213> Ctenocephalides felis

<400> 377

```
agtaagaagt aacttaaacc gcaaacgacc cagcatatca ataacattat tgtgttcttg 60
gcgagcgtcc agcttgtgaa caaactcatc attccaaaaa catgttcagg ttcagacgaa 120
taatctttta gcatttctaa tgcattcatc ttcaatgttg caccattaac tttggcaatt 180
gtgcgtaaaag ttttttcaca tttcttcatt tttcctctgc ttgctagcca tcttggtgat 240
tcaatcatat atttgttatt aattaaaaat attgcaaagtg gcaatgaaga aactagaaca 300
aaatcaaacc aatttctcaa ccaccacatc aaaagaggca ttgtgcaaat tccaaacgtc 360
cacccaattc cttgtaacat agcgacgtgt gagttttcat cacttgctga tatttccatt 420
cctatgacaa gaacagtctg gtatagagac atctgcgggn agtgcagtca ccacatatcc 480
aantacatac caataatatg aactagttag aaataagtta aatatttttc ctacataatc 540
aacaccatgc tgagaaaaaa tactggttcc ttccaatata tccctaattg tcaaatac 598
```

<210> 378

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 378

```
cttggcatct agttttgtaa attcagtttn gctgtttatt ttgctgcgat atttcaangg 60
atttttcgta tctggaggaa gtgcaacaat atatgcatat ttaggagaat ttcataatcc 120
taggcacgag agcagggcta ttatgggagc gtcaagcatc ttcggtattg cgtgtcttgc 180
attaccgacg gttgcatggg taattataaa tcagaaatgg tcattctata ttgacttttt 240
gggatataca tacaagccct ggaggttgta tatggttgca tgtggtttgc catcactgct 300
ttgttgtttt gctttgtgga aattaccaga aagtcccaaa tttttgatga atcagggaag 360
aaacgaagaa gctcgtcaaa ttattgcaa aatgtataga attaatactg gtaaaccaga 420
aagtgaattc cccgtatcat caatcttaga tgaatatcca ggagtggatg gtgaaaatac 480
aaataaaaca aagaaatc 498
```

<210> 379

<211> 451

<212> DNA

<213> Ctenocephalides felis

<400> 379

ttctgttcga agtaggaaat agttcgagtg tatgcaaat aactactgca aatactgcac 60
tcatgaataa acgaccaata agtgaaatta ccattaatgt ataagcataa tctaaactga 120
aagatagaat tggtagaaa cacgccgtag cagacataaa taatagaaag tttatagttc 180
ggcgtccaca aaatttcagt agcggcaaag gtatgaaata acttatacac tcaagcgatt 240
cactcataat gccgtatatc attttttcga caggcaaatt aatatcgttt attgccatag 300
catagtaacc gagagcactt gaaaaccaag taacaaggca aataagtaat ctatgtctca 360
tttctgtatg cttaagtata tcagttatct ccacaaaact atttttaact ttctgccagc 420
aagatggttt tttaccacca tctgcttgag t 451

<210> 380

<211> 401

<212> DNA

<213> *Ctenocephalides felis*

<400> 380

agtccactca ataaagtagc gacacctccc atcgtcagtg ttatgttatt aatccataaa 60
acattttacgc tagtatttga agccaaaacc ccgcatatca ccctagtcaa tgtgttagat 120
ataccaatag ttgataacaa ccaagctgtt tcatcatcgg tcattccgct gggtttgttt 180
ctctgagcaa tatataggaa tggtagtaag taacccatca tagtaaagaa accactgaag 240
gcgagcaaaa ggaatgacgg cgaacgcato agttcatat ctaacatggg agcgagagtt 300
cgacggaacg cttctgggca aagcttgcaa gaagactgtt cttcgacato cgcccgagta 360
ggtaatctag ttacggacat gtggtatcca atagaagtcg t 401

<210> 381

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 381

ggccctggac aagatgccct tcgactcacc accgaatatg gagctgtcta cgatcaaaat 60
gccaccattg aagttcttaa taaacagaag aggaaaactt tgtgccacac tgatggcgaa 120
ggagttgaat gcgaaacaga agaagggagc atcgcacctc aaataatact atttgttgcc 180
caattaatth ctggagtcgg tggatcttta tactacactt taggtgtatc ctatatggac 240
gataacacca aaaaatctaa aacaccagca ctgatgagtt tttcttattt tcttcgtatg 300
ctcggacctg caaccggtta tgccttggct agcgtctgtc taaagttcta catttcgcca 360
acgttgacgc caacaattga taataatgat cctagatggg taggagcatg gtggttaggt 420
tggttgatac taggatcaac ttttaatttt tttgcaacgt tgattggatt gtttcctaaa 480
atctgccaaag agctgcaa 498

<210> 382

<211> 461

<212> DNA

<213> *Ctenocephalides felis*

<400> 382

atgaatccaa ttcggaag agcaatcact tcatcatttg aatgcccato gtgatgctgg 60
gtcttccata cagaattcac agttgtatth ttaccctcag gacaaccttc agtcgacata 120
tttaggtaag ggaatttcaa attcccttga gcaatgttaa tttgggctcc acttaccato 180
caactgacca ggattagact tgcagctgct cccacaaaa ctcccttagt gtttgcttta 240
gggaacaaga ttcccaatgt aaacattccc aaaagtgttc ctgcagttac accagtaaca 300
ctgatgacaa ggtgcatgac gcttcctaatt tgttctacta cgaagacaag cccagacaa 360
attcctccaa ttactactac agtcaacttc ataataattac tggcagtcct ctcagtagtg 420
ctaaccggta accactcctt aataaaatct tcataaagtg t 461

<210> 383

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 383

aataaatata attttattat ataagaaaca tatgtataac aatacaaatt ataactatth 60
aacagtcttc ttgtgataat ttcttgacgg ccgtatctgt agactttgat acacctthtt 120
tcggtaaagt ccagaacacc tgatccctgc cgaatacgtg agcttcagtt agcgtttccg 180
gtaactthtt gtgtaaagt ttccggcaaga acattccgga agtcgcgccc accatcatca 240
ttacggaaag tacagcgtac ggatatctgg cgctcatatgt ggttcccaag tatacaatgt 300
atgggcctaa tactcctaatt gcatttgaaa ctatagttcc aatggaaatt cctgtctgcc 360
tcaaacaggt tggatatgt ttcatgtctt gcagattcac aacataaaac gtgatgctta 420
tgcaaaatth cattaccacg gctaacagtg ggaccaaatt ctggagggat tcatcattgg 480
caatgcatat aagaatgg 498

<210> 384

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 384

atcnnncnnn atangtggat ncnaagaatn ctangnatgg gcctaanact nctaattgcat 60
ttgaaactat nnnnccaatg gaaattcctg tctacctcaa actggttgga tatgtttcca 120
ttgcttgacag attcacaaca taaaacgtaa tgcttatgca aaatttcatt accacggcta 180
acagtgatac caaattctgg agggattcat cattggcaat gcatataaga atggaagatg 240
ctgccagagc aattccaaaa gaagctacag aggtccaacg tcttcctatt ctgtcgctgg 300
agaaacgtcc tagtagatat gctggttaatt ctactgccga ttgatataaa aagttgagaa 360
atggattacc toccatattg ctacggttca aaattaatgt aaaatacgtc acggaacata 420
caatccagca aagcacaata agtgtagtat ttctagctaa acgtaaaacta gaaaataaac 480
tcatgattcc gttaaactthtt 500

<210> 385

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 385

```
cattaaagaa gtatctttag gaccaacaag tttagctgct ctgatggttt tggaatattg 60
tcatgaaaaa ccagtcgaat atgtagtttt actaggcttt ttagctgggt gcattgaact 120
tatgatggga ttactgaaac ttggattttt agtcgatttc ataagtgcc caatcgtatc 180
gggtttttaca tccgcgatgt cgtaataat tatttgtgcg caggcaaaag gtttgctagg 240
gctgcattat acaggacatg gatttgtgga tacattgatg cagctaatac aaaggatatc 300
aaatgcgaga ttagctgatt ctatacttgc cttatgctgt atagtttttc ttttaacatt 360
aaggcaataa aaagatttga aagtctccag tcctgtttta aaaagaacct tatggtttat 420
ttcaactgga agaaatgcct tgatcggttt aattacagcg ttgcggctta cttttgggaa 480
angaattctt ggnaagcc
```

<210> 386

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 386

```
aatattttta attcataata tgtatatgat tgaatcgcca agatggttgg nggagtcgat 60
gtaaaataga acgatgtgaa aatacattaa aaatcatttc cagcgtanat aagacaactc 120
ttaatgaaga tgcaattaga gtgttaagag aaaaatcctc aggaaaacca gaaaaagttt 180
acggaatcat gagtttattt tctagtttac gtttagctag aaatactaca cttattgtgc 240
tttgctggat tgtatgttcc gtgacgtatt ttacattaat tttgaacgtg agcaatatgg 300
gaggtaatcc atttotcaac tttttatata aatcggcagt agaattacca gcatacttac 360
taggacgttt ctccagcgac agaataggaa gacgttggac ctctgtagct tcttttgtaa 420
ttgctctggc agcatcttca ttcttatatg cattgccaat gatgaatccc tccagaattt 480
gttcccactg tagccgcg
```

<210> 387

<211> 396

<212> DNA

<213> Ctenocephalides felis

<400> 387

```
atggattcat gtgcctttac ctttagtatt tgccgaatat ttttcacagg agagatttcc 60
ttcagcatac ggactgttca tgttcttgca aggaataatg acattggctt tgggtccaat 120
tggttgattt attcgagatg caacacacag ctacataata tgtttccatg ctttgactgt 180
gtgtttactc atttgctgta taccatggct tgccgagatg gcggtggtta aaatgaaaaa 240
taagaaataa atttaagaat taagttaata ttaatggaaa aattatatat agtttatgtg 300
aattttatca cactgttat atatctttat aaaagtaatt tataaaggat tgtcacagaa 360
aatataaatg acaaaaaaaaa tgtttttnaa aaaaaa
```

<210> 388

<211> 203
 <212> DNA
 <213> Ctenocephalides felis

<400> 388
 agagaacatt cggaagtgaa gatgcctgtg aacaagcatg atggatacca aatggacttg 60
 gacagtatgt tgaaagagtt gggacatgtt ggaaaatttc aacttctgaa ttgcctgttt 120
 atttgcatta caatattgct atttgctatg tatgcgatga gctatgtgtt cacagcggga 180
 gtagttaatc atagatgttt agt 203

<210> 389
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 389
 gtcnntcggg cagtcgggtt tgactcgccg tacaagatag tgattcgttt tagtgcgggt 60
 gtttttgttg ttgaacttat gtgcctttta cttaaacttt tcaaatttat tcaatttcat 120
 caagtttttg atttcgactg tgacgtacct ttaacaaata ctaaaaattt gaaaagataa 180
 aaaattgaaa tcgaacaaaa taaattaaag taaaaaaat ggagaaagat atggaaaata 240
 atgaggacca aaaagagatc aaaatggaat cgggcgaaga aagcatgcga ccagttttaa 300
 acacacctga tccagtcgcg actgccacag taatagttcc tcctgatgga ggatggggct 360
 gggtcatagt agccgcatca ttcattgagc acatgatagt ggacgggtatt gtgttctgat 420
 cggaccaata attgaagaga tcaaatttca tttggtgcaa gtaagctaaa gtagccctta 480
 tcagttcgtt gtctccggat tctatctgat ggtggtcttt ttagtggtgt tgccaatcga 540
 ntgggttcc 549

<210> 390
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 390
 gcctgtggta ggtcccagga gcaaggagtg gaaatgttgc ttctgtctcc acgttcggac 60
 tgcaacaata tgtcttggca tttggcattt gatgctgcac ttggttgac tatgtgttct 120
 tgtgataatt ttgcattctc cgaacctgat aaaccaattg gagcaccag atcaatcaat 180
 gatgggtgta ggtgttggtt ctatttctcg ttataacgga gacaatagct tgtaaaca 240
 gggtgatgat aatggaacac ctttgggaga aatggagcat cctccatag catatagaga 300
 ccactcactt acatatcatg atgtggacat ggggtgctctg gttacaattt gtacactggc 360
 cataacatta atgatgttat atggagcagt taaacaaaag cctgcacata ttttgccatt 420
 cttctgcttg caactatttg attttgcata actacactta ctgcacagga tatttggtta 480
 tttgcgcagt gtcatagatt gtatcagaaa gtcgcattac caatgagaga agacttttga 540
 actaacc 549

<210> 391

ttcgcccg

129

<210> 395

<211> 427

<212> DNA

<213> Ctenocephalides felis

<400> 395

```
catgattggc cgctgatgta ggtaaaggcg ctgggtcaacg tgaattctct ggattgggca 60
actgcttgac caaaatcttc aagtctgatg gtctccctgg attgtaccgt ggttttggag 120
tatctgttca aggtatcatc atctaccgtg cagcatactt tggattctat gacaccgtc 180
gtggaatggt gccagacccc aagaacaccc cattagttat cagctgggccc attgcacaag 240
ccgtcacaac tggtgctggt attgtgtcat atccattcga cactgtccgt aggcgtatga 300
tgatgcagtc tggacgtgca aagtctgaaa tggtgtacaa gggaaactg cactgctggg 360
ccaccattgc caagacagaa tgaagtgggt ccttcttcaa gggagctttc tccaatatcc 420
tccgtgg 427
```

<210> 396

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 396

```
atccaagaaa ctttaaaatg cacatctagg gaaactgatt taccaccaac accatgggtg 60
gcaatttgga catctgttcc attgtgggca cttatttgcg cccagattgg acacgattgg 120
ggtttcttca caatggtaac agatcttcca aaatacatga acgatatttt gaagttcaac 180
atttctgaaa atggattata ttctgtctt ccatatgtcg tcatgtggat cgtgtcgatt 240
ttatcagcaa tttggtgcca tcatatgttg aagaaaaaga tgttgagtgt caccaatgcc 300
aggaaattat tcacaacgat agcatctgtt ggtccagctt gttttattat tggagcatca 360
tttgcgtggt gtgataaaac tcttgttgtt gcttgttca ccattggaat gggtttcatg 420
ggaaactttc acgccggtat gaaaattaac gcattagatt taagtccaaa ttatgcgggt 480
cattgatggc cattgcaa 498
```

<210> 397

<211> 305

<212> DNA

<213> Ctenocephalides felis

<400> 397

```
caatcatgat gatcctaggt cctaattcct tccataaacc agcaaagcca agttttttgg 60
cagcgtaaat ggctgttgct cctttgtctt gatttagctt ggaaacaact gtgtctgcag 120
gatgagaaac tactgcacag aatacacgg caatgtaacc agcagcaaag gtgacaacca 180
attgttcacc tttagtgcatt totgtctctg gtttgggaac cacatgagtg tataacaatt 240
caactgttct ttcgaaacaa gcaaacttca tcatggtata tgggatttgc ctcatccaca 300
atggt 305
```

<210> 398
<211> 342
<212> DNA
<213> Ctenocephalides felis

<400> 398
aatacttttga atactttcata aagaccgaat ttgcaaagac cctgcatgga gtatccaaca 60
aaggtttgag cccaaccttt agcaagacct ctagcaccat cttccgctag agttactttg 120
aatccattga atactgattt gtattttgca ggatctactt gaatacggca tttcactaaa 180
tcaagtggaa cgaccatggt gtgtgttaca ccgcaagaaa taattcctcc aaatccgcaa 240
agagcaaagt aatgaccaga tccaaaggca caggaatctc ctggtgcatc tgagggtggag 300
gctgccattg ttgccaatga tttagattca gcttcacatt gt 342

<210> 399
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 399
tttttttttt tttttttttt ttttttttta ttattgaaat tcattttattg aatataatta 60
aaatttcaca tttttatatt cataatttta ctacatttct aagccttcat tataataccc 120
gttgcttgca gctccactag ttttacttgc attagaatta atattgtttg gataatcgtc 180
atttttaata cttgtatttg tattagttaa atttttggcc catggctgca cttcgccgga 240
tgcaaaaaaac caatatatca cagctcctaa caaatatatt ccacttgaaa tgtaaaatac 300
aatttgccac gatgtgagta aatcatctcc aacctttcca ttaacaatga aaccagtcaa 360
ttgagggtcg attattcctg gcaatgttgc aaaagtattt gacaatccca tcagaacgct 420
agcatattgt ggtgcgatgt ccaaagtatt tacactgaat ccagaccaag caaaagcgcc 480
caaaccacac gcgactgcag 500

<210> 400
<211> 383
<212> DNA
<213> Ctenocephalides felis

<400> 400
cgctgccccaa tggtttattt atgatgccgt caaagtctgg ttgcgtatgc cagcaccacc 60
accaccagag atgccagaat ctctcaagaa gaaattagct gcccaacagt aaaaatagat 120
ctgtgatgat cctctcaata atgcatgtat cagcaatatt acaattgaaa ttgcaactaa 180
catctaaaaat agcagtatca gtgatggact attcaattta gtaacaatgc tgtctaactg 240
gatcacgttt ttcatcccaa attttaattt taaatgaaat aggcaattat aatagtatta 300
caatttcttt taacaaattt gtgaaaaacg tttctggttg atgtgtaaat aaaacaaaaa 360
aaaaaaaaaa aaaaaaaaaa aaa 383

<210> 401
 <211> 188
 <212> DNA
 <213> Ctenocephalides felis

<400> 401
 taagccctta tagaatccat taagtccttc atncttatag attttgggaa ctgcttcacg 60
 catgggtgta gcaaattccag gcatagtctg gatacgaact ttagcagctt ccatgggagc 120
 taaagcaatg tcagcaaaga attctgcact agcagaagcc gacaagtaaa gcgatgtcct 180
 ccataagt 188

<210> 402
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 402
 tttttttttt tttttttttt tttttttttt gggtatataa aaatatttgt actatagnta 60
 gttctaaata tacatttggt cacaataata taaatattat ataatcattt gtaaaaaaaaa 120
 ttaatataaa aatctatata aatatttatg ttataaatta ctataacaac ngttacaatg 180
 aaagaaaaaa atagcactac tatacacaaa gtctttgggt atatgaaaaa tatttaaatt 240
 caatctaatt aattttttgc ttttgcatga tgtaagattt taccatgcct tttatatcag 300
 tgaatataaa agtgcctata aatacaagtg cagtaccgat ccaatgtatg attgtaaatt 360
 cattattaaa atatacaata gagaacaatn atgacacaaa ttttctaagt gtaataacta 420
 aggncaactgt taatgatgaa cattctgtag tcagencatc nctgggcttt tgcccngggt 480
 tnggggttatt nontttcccg 500

<210> 403
 <211> 487
 <212> DNA
 <213> Ctenocephalides felis

<400> 403
 attattactt ttataaaaaat ataaatctat ggatatctat ataagggaga ggtgtgggna 60
 acctacatga ttaaagtatc actttttattt aattaattag ctattatgta taggtaattc 120
 tatttagttt tgtttaatta attaattact cagccttgct tattattatc gatttcgata 180
 cggaaagcca aatcctgcat cgagtcgtgc tttagaaggg acttcttttc gggatcttta 240
 acttttctga ttggtttttt gttttttacca tatctatttg taacaccatc atcctcgtcc 300
 atcatcctta aaatagttaa ttgatccgat gaatctaagg gggccacaga aatatcacga 360
 acggctctga atttaccaca attattcaaa tgttcgtttt ccaaacggaa gaaattccat 420
 acaaacctcc taaacacttc caatggtgac agtatagatg taagaatgtc cccgctcaca 480
 aaattgt 487

<210> 404
 <211> 343

<212> DNA
<213> Ctenocephalides felis

<400> 404

```
tttttatgct gatttagggg taattaaatt agcagaagac atagagttta gtgataagggt 60
gcaagctgta aacattcacc aaagtgaaat ccaagggtgt gaggaatgca aagcaactgg 120
atggggtcga ttgggtgccca gtcaaccaat accaaatgcg ttgcaacagt tggcaaccac 180
tgctttaagt aatgagaagt gtaaagaagt tactggattc ttcgagccca catcgcaaatt 240
atgtgtattc aaaggatctg gaaaaggagt ttgttttggc gattctgggtg gacctttagt 300
ttacaatgga gaacaagttg gagttgcac atttatattg ggt 343
```

<210> 405

<211> 387

<212> DNA

<213> Ctenocephalides felis

<400> 405

```
ntgtcaacna tttgcaanta tttgnaatt tggcnaccat tanataatta cccccancna 60
cccanantgg anacggcccn aattggggta ccanaccttg ccanacnanc nggtttgnca 120
nanttngtgt anacaanatt tgangtantt tttaccaaac cnatnlnatn gtggnangtg 180
tnegggttaa attggttatn aacnatnatt tgggcaactt tgtanccaac nccgccanca 240
tncaaanagt tggtnccaac nacaanaaga atancatttg ganattttatt taanacccaa 300
ttaccacat taanaancca acnattgcng atnatggaac caccacanaa ttgtccttgg 360
ttggttctca aagacacat aaaagggt 387
```

<210> 406

<211> 127

<212> DNA

<213> Ctenocephalides felis

<400> 406

```
aagagggcca cggagctctc cagagcaagc gctaaactcca ccagtcaagg gtccagtgca 60
caagtttggt ggggtgcaatg gagtagatcc ggctcctcct agagcctttt cacactcggg 120
gtatggt 127
```

<210> 407

<211> 415

<212> DNA

<213> Ctenocephalides felis

<400> 407

```
cgaagggaac aactttgagt gtaactggat ggggcgccac gaagggaatgg gggccaattt 60
cgccaaagt acaagaagt aaagttaaag cttactcaag tcaagaatgc aagaacagtc 120
atgctattaa cagtgcacatc atttctgaca gtatgatgtg cgctggtttt cctcaaggac 180
aaaaagatac ttgtcatggg gatagcgggtg ggccacttgt agatgaaaaa caggttcaag 240
```

taggagttat atcctggagg cgaggatgcg cgcgacctgg atatcctggc gtatatacaa 300
aattgagcca cccggaaatc caacagttta ttaaaaaaaa tgtaaaattt taaatcataa 360
aactgtatga ataaacaatt acgaaaaaaaa aaaaaaannn aaaaaaaaaa aaaaa 415

<210> 408

<211> 445

<212> DNA

<213> Ctenocephalides felis

<400> 408

cccaggatac aatccctata agtttcctgt ttttgtcaac taatggacca ccataatcac 60
cgtgacaaaa accgccacct tttgcagaac cagcacataa cattctatca gtgattctgt 120
ctggttttcc tggttctgca taattacttt gacatactga agaactctatc anaggaatcc 180
aagcaccaag taattctgaa gaatcgtttc cttcggtctg gttagctccc catcctgtta 240
cataaactaa agatcctaca ggagtctcat attgctcatt agctaaattt acaggctcgac 300
tattacacac tgtaagttaa ataggatttt taactttaac cagagcgaca tcataatcaa 360
aggctccttat attaaatttc ggatgtaaaa ctatgtcggt tacctcgtat acatttccat 420
ttgaattgtg gtaggaactt cctgt 445

<210> 409

<211> 445

<212> DNA

<213> Ctenocephalides felis

<400> 409

aggaagttcc taccacaatt caaatggaaa tgtatacgaa gtaaccgaca tagttttaca 60
tccgaaattt aatataagga cctttgacta tgatgtcgct ctggttaaag ttaaaaatcc 120
tattaaactt acagtgtgta atagtcgacc tgtaaattta gctaatagagc aatatgagac 180
tcctgtagga tcttttagttt atgtaacagg atggggagct aaccagaccg aaggaaacga 240
ttcttcagaa ttacttggtg cttggatttc tctgatagat tcttcagcat gtcaaagtaa 300
ttatgcagaa ccaggaaaac cagacagaat cactgataga atgttatgtg ctggttctgc 360
aaaagggtgac ggtttttgtc acggtgatta tgggtgtcca ttagttgaca aaaacaggaa 420
acttatangg attgtatcct ggggt 445

<210> 410

<211> 352

<212> DNA

<213> Ctenocephalides felis

<400> 410

gacaatctaa taagggccac atcatgttcg aaagatgtaa agttggtgtc aaagtcggga 60
tgtaataaat aaaaattggc atccacaatt ataccagcgt aataagccct aaagctgcc 120
actcgaactt gaacttggtt ttogttgcgg acatttttga agcattgagc aacagtgagc 180
acaaaatata tactaactat gactcctcca caaatatgat cacctctata taaaacagat 240
gccacgtaag gtaattcgct gatgtcagca ggctttcctc cgatcatacg agaactcggtc 300

aaatTTTTgc tttctgctcc agaaaataat acaataaaga aaattgcaaa gt

352

<210> 411

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 411

tggtatagaa taaaatTTTT ttataatcag aaattatctt cgctttaact tttgatgcat 60
attatTTTTat gagatatatt tataataaat attttattca gaattgttca ataaaacatt 120
gtcctgtgttt ttgtgaatcc agtccaagaa gtgatatact cttgcataga cgtctggcac 180
tcctgtgcc aatggaatac caaaagatac tactctggca acaactggc catcagggtc 240
tcgaacgac agaggaccac cggaatcacc catgcataca ccaatgccc gtttccggaa 300
agcacacagc attgtttcag ttatatcatt ttgtctagaa actttattct tgattgggtc 360
ttgattgaga aatTTTTggc aaatgcgact ttcgtagag ataccatca tttttgtaa 420
atgatctggt atttgaccaa atggagtagt ttgtcccaa ccagaaactt caacagtctc 480
tccgcatgg tatcttct 498

<210> 412

<211> 386

<212> DNA

<213> Ctenocephalides felis

<400> 412

cttttatggt gtctttgaga accaaccaag gacacttctg tgggtggttc atcatcagca 60
atcggttgat tcttactgct gctacttgcg tgtaaataa atatccaaat gatattcttc 120
tcgtcggttg aaccaacact ttgaatgctg gcggagtagg atacaaagt gcccaaataa 180
tcgttcataa ccaatttaac cagaacacat accacaataa catcgctttg ctaaaaacta 240
catcaaatat tgtatacaca aactatgtca aaccagttgg tctggcaagc tatgatacac 300
caattggagc agtatccact ctggctggat ggggctactt atctaattgg ggcaaattcc 360
caactacttg caaatcggtg acacgt 386

<210> 413

<211> 348

<212> DNA

<213> Ctenocephalides felis

<400> 413

ctcatctacg gtcaatggac ctccagaatc tccactgcat tgtgctctgt cataatctgg 60
ataagctgcg caaatTTTgct ctttataaat ggggtctaaag tgcaaatcac cacattcctt 120
ggatccgacg atctggtagt gcaattcttg cagatgtgtt tgcaaaactc cgtcggtagt 180
agaatttatt ccccatccga caagagtagc tgggtgcattg tgtttagttt gttcatttgc 240
ttctggcaaa gtaactggtt gcgcaaattt actatatTTT aagggttcag atagcttgag 300
aagtgcaatg tcgttgatat aactgttact aggattatat cctttgtg 348

TTTCTT" GGTGTTGGG

<210> 414
 <211> 147
 <212> DNA
 <213> Ctenocephalides felis

<400> 414
 cattgccatc taatgagttt gatcccatat agacggattt taaaatgccg ggtttttaggc 60
 aatgtgcagc cgtcacaaac caacgtttgt tcaagatgga tccaccacag aaatgctcta 120
 ggtctcgatt tctcaatgaa acttggt 147

<210> 415
 <211> 467
 <212> DNA
 <213> Ctenocephalides felis

<400> 415
 ctttacatat tgcagttggt cggggtcgtc ttcattcttc cctaaatttc cccagccagt 60
 aacagtggnt aattctcctg atggcatgtc tttccaaca tcagtaagtt tgactgttct 120
 aacagntctg ttattcaacc ggaatggtct tcgaaccttg atgagggcga catccatata 180
 gatgtcagtt acattaccgt atgcaggatg cttgataatt tgtgccacag gatgaacgga 240
 accacgtctt ccttggaaac tggtgccgac tcgaactgaa tacgtgaatt catcatatat 300
 gcaatgagct gctgtgacaa tccaataatt attcaatatt gaagctccac agaaatgttc 360
 gttaaatact tggagtgaag cttgatagcc atatttgga atatcagcat cttgnctcca 420
 acaatgogcc catctaatac atcctttatc ttgnaagatg agacggc 467

<210> 416
 <211> 346
 <212> DNA
 <213> Ctenocephalides felis

<400> 416
 tcattacggt gtggaatggc tcgtccctca tcctcgttat gatagccgag atcaaaaatta 60
 caatgtaggt ttaattatga taacaaagga tttcaatgaa actagaagaa gccgacctgc 120
 caagctcgta gaggcaaatg tcgacttgcc tgtaggctcc tttgtcacag ctactggatg 180
 gggatctgaa acgataccag gagcacctat gtcagaaaat cttagagcaa tatctttgca 240
 cgtcattgat aatcaagaat gtcttgaaaa aaatcaagag ttgattgatg tcacagacaa 300
 aatgttttgt gctggatcaa tagaagataa aggaaaatca gtttgt 346

<210> 417
 <211> 312
 <212> DNA
 <213> Ctenocephalides felis

<400> 417

aattcttggc tataagttcg ttgcatgttt tgcaagtgat ttgnttattg catttattno 60
 cgtggcatat ttacatgaa tcagagtttg cattacaatc gttaccctga tctgatttgc 120
 atoctcgagt aatgacacct ttttcaattt ttgaatagca gtcgcctttg gattcatata 180
 aactttggtc ttogtctttc ctgcatcttt gaaacattcg tttcttagtt ctggaagttt 240
 ttgaacgta caacccgatt tctcgcaaca cattttttct cggntagtcg agtcacaact 300
 ttctttaacc gt 312

<210> 418

<211> 315

<212> DNA

<213> Ctenocephalides felis

<400> 418

aattcttggc tataagttcg ntgcatgttt tgcaagtgat ttgnttattg catttatccc 60
 cgngggatat ttacatgaa tcaagagttt gcattacaat cgttaccctg atctgatttg 120
 catcctcgag taatgacacc tttttcaatt tttgaatagc aagtcgcctt tggattcata 180
 caaactttgg ncttctgtctt tctgcatctt ttgaaacatt cgtttcttag ttctggaagg 240
 ttttgaacgt tacaaccoga tttctcgcaa cacatttttt cttgggtagg tcgagtcaca 300
 actttnttta accgn 315

<210> 419

<211> 387

<212> DNA

<213> Ctenocephalides felis

<400> 419

aaactggnnt atccctggtg tcaatgggag ctggnggnnaa tactgncaca naaanagcng 60
 cgggnttacg tcagcctnaa ncaaaagaaa aaatncaaga tgactaccat gcattgatga 120
 acactctnaa tacacaaaaa ggngaaactc nggaaattgc caacaaagtt tacgttatgg 180
 aaggtatatac attgaaaccc accttcaaag aagnggccac caacaaatnc ttagctggag 240
 cagaaaaactt gaactttgcc caaaatgctg aaagcgctaa agttatcaac acttgggntg 300
 aagaaaaaac tcatgacaaa attcatgagt ngatcaaagc cggatgatcta gaccaggatt 360
 caagaanggn tcttgtcaat gcattgn 387

<210> 420

<211> 236

<212> DNA

<213> Ctenocephalides felis

<400> 420

aatatatttt ttgacatcat agtaacgacc tcctttgttt agtttggttg atccgacgta 60
 gatggaactc aaacggcctg cgactagaca atgtgcagca gtaagaaccc atttttcatt 120
 aagaatcgat ccaccacaaa aatgtttcaa gaatttatct nttaaagata cttgaaatgg 180
 agcagaaccg ggggcgccgg tctgcnnctc cacaattctg gtgtgggtcat tggaag 236

<210> 421
 <211> 447
 <212> DNA
 <213> Ctenocephalides felis

<400> 421
 tnnntttttt tttttttttt ttttttgatn attagngata tttatttgag tagtaatatg 60
 gtttaatttg ttagttgagt atcaaaattt tgtaaaacat ctogtcttag ttagtctcgt 120
 cttagtcatt gaaattaagg aatatcaaaa aatatttgta atattataag ttaaaactct 180
 tatattccag tgtgcatttt gataaattct cttattgggt ttgaagccac tcgggtatat 240
 actoctggga tttcgggtcg tgcacatcct attccccaag acactattcc atgcagaact 300
 cccttagagt tgacgagtgg gccaccgcta tctccttggc aagagtcott accgccttca 360
 ggataaccag cacaaatcat attttgggta attattagtc cttcatttcc atatatagtt 420
 ttgcactgag tccagttaac aataggt 447

<210> 422
 <211> 367
 <212> DNA
 <213> Ctenocephalides felis

<400> 422
 tttntttttt tttttttttt cttttttagg gantttttat atttatttta tgaacngctc 60
 tgatttttaa attttaacat gtttactgat aaaatctcta acaattgggtg atgaaattng 120
 tgtgtatact ccgggactga ccgcccttgc acaccgctcg cccaagata cgatccccac 180
 aagagtntta ttttnntnga caagtgagcc cgcgntgttt ncttggcacg aatccttttn 240
 ttcgtcaaga aatccagcnc aaagcatgtg ttntgtcaat gtataacgag cagcatacaa 300
 tattttacag aaagaaaagt caatcactgg tatagaaacn ccgcgaaggt tttccgaaaa 360
 aacttgt 367

<210> 423
 <211> 432
 <212> DNA
 <213> Ctenocephalides felis

<400> 423
 cagatgtata tgcaagagta tactattatt tggattggat ccatcaacat actgataatg 60
 nntctattga acaactcaga ataaattaat tgaaaaaata gctaagttat catagtaaag 120
 atcttgacgt ntttataaga tttaataaat aaaaaacaat catagataaa aaatcataga 180
 tagataaacc atagaatgct gttcctttgt atggcaaact gacaaattga ttttaatcac 240
 taccaaatta ttttttgtaa ctatgataaa atattctata aaactattcc tactaattta 300
 tgttatagat gaggtgatag tataggtcag tcagcatatg tgatatttac cagtatatat 360
 aagttgaaac cattaaattc agtattacgt gaaataaatg caaaaaaaaa aaaaaaaaaa 420
 aaaaaaaaaa aa 432

<210> 424
 <211> 354
 <212> DNA
 <213> Ctenocephalides felis

<400> 424
 tacctcatct acggtcaatg ggaccctcca gaatctccac tgcattgtgc tctgtcataa 60
 tctggataag ctgcgcaaatt ttgctcttta taaatgggtc taaagtgcaa atcaccacat 120
 tccttggaic cgacgatctg gtagtgcaat tcttgagat gtgtttgtaa aactccgtcg 180
 gtagtagaat ttattcccca tccgacaaga gtagctgatg cattgtgttt agtttgttca 240
 ttggcttctg gcaaagtaac tgggtgcgca aatttactat attttaaggg ttcagatagc 300
 ttgagaagtg caatgtcgtt gatataactg ttactaggat tataaccttt gtgt 354

<210> 425
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 425
 atacatatcc aaaattcaac aagnotatgc catactggat cataaaaaat tccnggggnc 60
 cccgctgggg cgaacaagga tattaccgag tataaccngg tgatggaact tgcggagtgg 120
 accaaatggc tacttcagcg gttttggata aaccagttgt taactagaca aaaatacacc 180
 aagtgccaaa tatgatcctg ccaaaccttt ccatgtttat aagtagtgcc aaacaaatta 240
 tcttcggcga ctgaaatatt ggacaacttg catgcatttt tgactatttt aaattgaaca 300
 gttcagcatt atttatgtct ggcagaataa cagaggcaaa acaaacaaat gncgatcaaa 360
 tattacaatt cgatgngctc ttaatttgca taaatataga tattatacta attcaaaaag 420
 caatctgctt taaaatgaga atataaagga gcaagncgct agttttcttt tacatggtaa 480
 aatatcgaca acataaga 498

<210> 426
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 426
 ccagtagtat tagtagattt agccgaaagt ggaactgaag ttaaacctgg agcaatactt 60
 agtgtcactg gatgggggtgc aactaaggaa ggtggcgng gaactttgca actacaaggt 120
 gtgaaagttc cagctatctc tcccaaagat tgtgctaagg ggtatccacc ttctggaggt 180
 aaagacaaaa ttacagacag natgttatgt gctggtcttn ctgaaggagg taaagatttc 240
 tgccaaggcg acagtggcg tccactggta gatgaaaata gaaagcaagt aggagtgggt 300
 tcttggggtc aaggatgtgc cagaccagga aaaccaggaa tttatgctaa agtgtcacac 360
 cccgaaatca gaaaatttat tgaaaaatat gctaattgtt aagtggattt tatttcaata 420
 taatgtgatt taagatactc tttaatggta tgtaataaat tgngataaat taaataataa 480
 aaattggaga actggaaaaa 500

bioRxiv preprint doi: <https://doi.org/10.1101/000000>; this version posted May 1, 2014. The copyright holder for this preprint (which was not certified by peer review) is the author/funder, who has granted bioRxiv a license to display the preprint in perpetuity. It is made available under aCC-BY-NC-ND 4.0 International license.

<210> 427
 <211> 360
 <212> DNA
 <213> Ctenocephalides felis

<400> 427
 aaaatcgaat cgttggtggc aatgatgtaa gtttttcaaa aaatgggtgg cangtatcag 60
 tgnaaagtaa taaccaacat ttctgtggtg gttcaatcat tgctaaagat tgggtgctga 120
 cttctttctca atgcgtcgtg gacaaacaaa gtccaccgaa ggatttaact gttcgtgttg 180
 gaactagcac tcacaatgat ggaggaaaag tgtatgatgt tattgaaatt ataaaacatc 240
 cgaaatataa taaagcagtg ccagatgatt ttgatgttgc acttttacgg atcaaagagc 300
 caatatcatt tactccatgc acagtaactc ctgtaaaatt aatacaatcg ggaaaagaag 360

<210> 428
 <211> 266
 <212> DNA
 <213> Ctenocephalides felis

<400> 428
 ttttctacat ccttgtcaac ttcttgaatc tttttatcca acattttctc aatctttgta 60
 agatcgtctt catcataagc gtctccgcaa atcttacgag ctacaacatt ccattcctct 120
 attacatcat cttgtgggta gaactcagaa agatcagatg agtaaggctc tggttcacct 180
 ggactgatgt tattgtctcc catatatgtg attaaatcac ggaagtcgac atcacattga 240
 attggatttt gtgaaaaatc aatagt 266

<210> 429
 <211> 328
 <212> DNA
 <213> Ctenocephalides felis

<400> 429
 caacacaact ctgcacatat attgcanttt ggaaaagggtg catgtgctgg tgattctgga 60
 agtccttttg cagcagggtg ccaattagta ggtattgttt cctgggggtg cccatgtgcc 120
 actggtgtcc cagatgtcta caccagagtc tatgcttacc gcgattggat cagatattac 180
 actggatttt aatctcctaa actcatctca tttgttatat tgtaaattat gtaaataaat 240
 atgaaaaatg tataatgaaa atacttgta aataaaagt acttttatta agaaaaaaaa 300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaa 328

<210> 430
 <211> 235
 <212> DNA
 <213> Ctenocephalides felis

<400> 430
 tttttttttt ttagttttta taattattgt agatcaacat gttatattac ttgcatagn 60

gngatatcgg ttactaaata ccagtatggt tcttcacaaa ttctcttatt tctggatcag 120
 ctagtcttgt aaatacattt ggatatggaa aacttggtgca atttctagtt gaaaaagctg 180
 tcaagcctac taaaacccca ttttcgtcaa cgacgggtcc accaaaatca cctgt 235

<210> 431
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 431
 cggnggtggt attttaaata aagaatatgt tcttactgcg gcacactggt tcaatgatgt 60
 aactcatcat tcggaaattc aagtcagagt tggaagtaca aatgcttata acggaggaat 120
 aatcgtggat gttgaggaca ttacagtaca cgaactttat aatgaaaagt tcacaaatta 180
 tgatgtagct gttgtgaaat tagcttatcc attaagattt gataaaaaata taaaagcagc 240
 ggtactggca gaggatggat atgagccaga aataaattct aaggtcactg tatccggatg 300
 gggtagtttg agctaccttg gtccataccc agaagagcta caacaggtag atttgcagggt 360
 cgcagaccac gacgactgct cattgcttac atggcacacc tcgacctgcc gaaagtcaaa 420
 tttgtgctcc gtccctggtg agtcaaagac tctgccagggt gactctggtg gccctgctg 480
 agaatggcgt cgcgtagcat gtgtccttgg tgccgtgcgc ggaccagata tcagagttat 540
 ctgatttgg 549

<210> 432
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 432
 gaaaatcaga ataaaatgca gaaattattg atactagttt catttttatt tcccttgatc 60
 gtctgtaaag aaaaccgaat tattggtgga gaagaagcta atatagcaaa acatggctgg 120
 cagggtgtcac ttttattatt cggaaatcat tattgtggtg gagtaatcat tgacaaaaat 180
 tggattttta cagccgcaca ttgcattgaa aatgaaacaa atgccaataa aagatattca 240
 gttcagattg gaagtagtac acatgaaaag ggcggaagaa tatacaaagt caaagaggct 300
 attttacacc cagaatatga tacttatacg gtggactttg atgtagctct gattcgctta 360
 gccgaaccaa ttgcattcac cgcctgcaca gtgcgcccac ttcaaatagt agatgaagga 420
 gtaaaaacat tggatggggc aatgttaact gtaccggatg gggatccaga cgactggtgg 480
 agattaacta cagaattaag aacgtaaatgt ccattattaa taagaaaaat gtgatgaatt 540
 tatttcca 549

<210> 433
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 433
 gaagatatga agaactttttt caaaatatcg gttttaatcg atctgtatat gttgacaaat 60

```

gttgctgctg aaaaaaatc tggctgaata gctggtggaa aaataataga tatatcaaaa 120
tgtggatggc aagtttcatt gcaaacatct gatcagcatc tttgtggtgg ttctataatt 180
aataatcatt ggatactgac agcagctcat ggaaatgctg atacttattc aattcgtgtt 240
ggaagctcta ggacgactc cgggtggtgt gtatataatg tcacaaaaat tataagacat 300
cccaaacacg atgaacaaac atttgatttt gatgttgctc tggtagctgt taacacacct 360
atcaagttta cagtatgtaa tagtaaattc gtcaaaattg aagaaaaagg catcgaaaca 420
cctccaggaa aaatggtcca agtcacagga tggggtgcag aacaagctgg aggtcccgt 480
catatttcct gcaggaacat ggttctattg nagcaatgga tctgcaagaa atatgcagaa 540
gattaaaac
549

```

<210> 434

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 434

```

ttcaacttgt ggatggcaag tttcgtttca caataggaaa ggacatTTTT gtggagggtc 60
catcattggc aaagaatgga ttctaactgc tgcgcattgt gtaaccaaat atgaaaacga 120
tatcgaaggt ttaaaagtta gggttggaag caatgagcat aacaaagggt ggcgtttata 180
cgacattaaa gaaattaaaa aacatccaag atataacgat cgaaccagat acgattttga 240
tgctgcttta ttacgcattg caaagccaat tgcatacact gcttgcaactg ttgttcctgt 300
agcattggca gaaactggaa aagaagttcc agaaggcgca ctcgttagtg tcacaggatg 360
gggggctact atggtgggcg gccagcatca acgcatctaa aagggtgtta ggggtccaatc 420
gtgtcaaattg aagaatgcaa caaaaattat ccattcctgg aggtctggat gacaaaattt 480
cagacagcat gttttgcctg gttcctgaag gcggaaagga ctcgtgtcaa ggagangcgg 540
tggcctgta
549

```

<210> 435

<211> 465

<212> DNA

<213> Ctenocephalides felis

<400> 435

```

attgtattca gtgacaaagt tcaaccaatc aaaattagca aaagaaatat caaggatggt 60
gaaatctgca aggccactgg ttggggtcga ttggcggtat gggccccagt accaaacgaa 120
ttacaacaag tggaaaccac tgtaataaca aacgaaaagt gctacgaatt gtctcaattc 180
gttgaaccaa ctctgcaaat atgtacatta aaagaatttg gaagaggcat ttgcttttgt 240
gattctggtg gaccactggt ttacaaagat gaactggttg gcgtttcttc gtttctcttg 300
tatacttgcg gagctggacg ccagatggt tttgttaaag tgcgcgattt ccaatcctgg 360
atcaattctg aaattagaaa aaattaaata gatatcaatc ataatttctt gtaataaaaa 420
atggttaaat aaagacagca taatctaaaa aaaaaaaaaa aaaaaa 465

```

<210> 436

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 436

gcnttaggcc tatgcctagg tgaaaaagtt atattcaata actataaagt ttatagagta 60
attgctgaca acttogaaca agttgagggt ctgaagaatt tggaaaagga ctctgatgcg 120
tacaatttct ggaccatgt tggagcccca ggcaaaaatg tagacatcat ggtaccccca 180
cacaaacttg aggatttoga aagcacgatg caataccata gaataaacca cagtgtaatg 240
agcgatgacg tccagaaaga tatcgaccta gaagtttttg gtacaagtag agaagcttac 300
agttggacca agtatcaaga tcttgaaaca acctatgcat ggatggacag cttagccaag 360
gcacaccag gaaaagtcac tgttctcacc attggcaaaa cttttgaggg aagagacatc 420
aagggagtca agatttcatt cggaactggc aaaccaggcg tatttattga cgctggaatc 480
cacgcccgcg aatggatcac actgccactg cacttacatc ttaaacgaat tgtgactcca 540
aagacgccg 549

<210> 437

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 437

gaaatataaa atttcttttg tatatattgg ttttatgaat gatcagatga gtggatttta 60
cagaagttct tacaccgagg acgggaaaac aaaatggatt gccaccactc agttccagcc 120
aactcatgcc cgaaaggctt tccatgctt cgacgaacct ctttttaagg caactttcga 180
catttctata attcgacca aacatatggc aacttttaga aacatgaaac atctgaggaa 240
agatgaagtg gttgcagacc atoctaatcg actgaaagac accttcaaaa ccacactcaa 300
aatgtcatct tacattgttg catttgttgt ttcggaattc aaaagtgttt cccaaaaacc 360
tgatcaggaa tttgatgttt gggcccgacc caatgcatat acgcagggtc aatacagtta 420
cgatattgga aaacaaactt tggtaaatta gaagagttac tggctataat tcgngccaag 480
gatggaaaaa tggnatggna gcttttctgt tttctgagcc ttggagaact gggcttntac 540
ttcaggaac 549

<210> 438

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 438

aacaaacctt cgtggagggt ttgtttaata tcatccagcg cgcagcaacc tcaaagaaca 60
tgcacagaat taaagtctga cactctggac atccaatgcc aaaggggatt tcgctcagtg 120
coctgcacca gccgtatgca gcccgggacc agggcaaact tggcatgcaa accaggattc 180
cagttgtctca aagaaccaga gttctcgcaa attaatgctg gaaatgatgg gatttgggat 240
aattgtttgt tttcttgca accagaatgt ggaaatccaa caccaattga aactgttttt 300
aattcggacc cacctgtaac gtacttagca ggtcaatatc catggtatgc aatgttgttt 360
accogaaggg aagatttatt caaaggacaa tttctattca gttgtggggg gtcaataatc 420
aactcacgaa tgatagttac aactgcttat gcgctcataa gccagaaatc gattggatga 480
tcagagagtg tgtggatcta gtgtattcgt ttaataaaca gagatnttat gctagontac 540

gaatagaaa

549

<210> 439

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 439

agcatttgtc agtggctgtg ttttaaatcaa ctgggttata gtcattgcga taacaaataa 60
ttagtataaa atcggccatt taataacact agccatcagt tttcaatcga acgttgaca 120
agaaacatta aaggataaag gggtaaagga tattttggat ttttcaaat gaagttgcta 180
gtattatttt taacatttgt cgcctgcagt agcgccgtat ctttctttga tttggatgaag 240
gaagaatgga gttcattcaa gttggcccac aagaagcgct atgaaagtga aaccgaagaa 300
aagttccgtc tcaagatctt catggaaaac aaacacaaag ttgcaaaaca taaccaacga 360
tatgaaatgg gtttggaatc ttacaaacaa cgtatcaaca aatatgctga tatgttgac 420
catgaattcg tccagacttt gaatggattc aacaagacca gatcaaatgc cttcgtcttg 480
tggtgtcgaa aaattgcgtg gagcactttc atctctctgc nacgtagaat tgcaaacatg 540
tgactgcgtg 550

<210> 440

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 440

gttcnnncgc ccacanacat tttcaaaatg ctaaaagcan caacaataat ttttatcgct 60
ttcaattttg tgtctgtgtg cgtttatgat gggtacaaac tttacgaaat aagaccccaa 120
acaaaatccg aggcctacga tttaatggaa tggcaagtaa aaccaggagt cgatttcttg 180
tccgaagcca ggatgctcaa tcaggctagc cagggttatga tctcacctga acttcaggag 240
gaattcgaag gatattctgt caatggtaat tatacttgga aagttgctga ggataacata 300
gagagacttt tacaagattt tgaaagaagc agaaaaaagt caagtgcgcc acgtgacgat 360
ggatttgatt tcaatgatta tcaaagatcg caaacgatca acttatacgt aaacaaattg 420
ccaaaacgta tccaaaatat gtgactgtta aggatgaagg aagaagtttt gacagcgaat 480
catcaaatct gtccaattac agatggatca attccaaaaa caagcgcgat ggtgatcgct 540
gtggtgccat 550

<210> 441

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 441

ctcctccagg tcctaaggac aatgatacta tagcaattta taaattttta gatactgaat 60
tttatgctga gggttggaata ggccatcctg taaagtattt caaacttgtg gttgacactg 120
catgggcaga aacatgggtg gcctcgaaac aatgtggatt aaaatgtgtt ggatgttgga 180

atcttaataa atatgactct ttggcatcat caacatttca agaaaacggt aaagaatttt 240
cttttggtc aggcaaagaa gccataacag ggttcttttc aatagaaagt ttttatattg 300
gccacataaa tgttaaaaat cagacttttg gggaagtaac atgtttgcc tggcactact 360
tgttttcaaa agcagatgga gtattaggat tagcattcag cagtttatct attggcaaca 420
taatgccaat attttataat atggttatca acaattgatt aagaaaccta ttttttctat 480
ttattgaata gagatccaac gcaaatcatc tggttcatca tgatcgggca tcaaactcta 540
acattata 548

<210> 442

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 442

tttggctgat cctgataagg aaagtcaggc tgaaccttca ccatacaatt accgatggga 60
aattccaata acgtacatca cgaatgttaa agacgattat aaacttgaat ggttcccgag 120
ggaagatgct caaaaaacta ttcaagtagc cgaagatgtc gaatggataa aactcaacaa 180
tgatcaaate ggatactaca gagtcaatta ttctgaggaa atgtggcaaa aattgagcaa 240
tgctatgaag aaaaggataa ttagtttttc agcctcagac agagcccatt tattaatatga 300
tgcccttttc ttggccgaag caactttgtt gccctattca actgcttttg agatgacaac 360
ttatttgga aatgaaatgc attatgttcc atgggcagtt gcctctactg aattttattc 420
tttgaaaaaa ttgctatttg gaagtgaagt tatgagaaat ttacgaaata tgactagaa 480
attcttcagc tgttatgata gaataaaatg ggatgtcatg atgatgaaaa cattnngataa 540
catctcnag 549

<210> 443

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 443

ctttgtctca gccaatccgg ctggaaggat cgttggaggc gagaacgctg atgatgcctc 60
tgctccttat caggtttcac tacaatttaa aaacttccac ttttgtggag gttctatttt 120
gaacaaatac tggatcatta cagctgcaca ttgcatgggg agacgttttg aggtagtagt 180
cgggtattaac agattagacc aggaaggcta tagataccaa gtagccgaaa tagtcacatt 240
gccattcgat tccgaaacaa ataattatga tttggcactt gtaaaagtta agaagccaat 300
taagttcaac tacagggtac aaccaattcc tttgggcgaa gaatatgtcg aaggaggtga 360
agaagctcgt cttacaggat ggggcagatt aggagctgat gaccctgcac caaacgaatt 420
gcaggaattg aacactttta ccatcagtca taaaatttgc aagaaagctc accanatgtg 480
gttaccacaag tcagatatgt gcatttgaga aaaagaaaag ggctgctggg gacttgtggn 540
cattgncga 549

<210> 444

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 444

ggcatccaaa actttatcta ttttgtgctt ttnggtattg ttctacctag tttcggatac 60
cgaatccttt atcttaaaga ccaataaaac tgatgagaag atcgttgggtg gtgaggaaat 120
aagcataaag aaagttoctt atcaagtatc attgctccat tttaatggac accgtgtgcg 180
gcggtgtgat tctgactaga caatttgtcc tgacagcggc tcattgcttc atgttcgtct 240
acagccacga agaagtcaaa gtacgtgttg gcagttctga aataaaccat ggaggaatga 300
tatttgatat tgaattctat gctcttcac ctagctatcc agaagaccat gatgacacat 360
ctgattatga cgtggctctt gttaaacttg catatccgct taagtttagc gaagacatcc 420
aaccgatcat gatggctgaa aaggactacg aaccaccagc aggaaccaag gcttatgtgt 480
ctggatgggg cagaacatcg tcgggtggcaa ttgctaaaaa tcttagagga gttgatagaa 540
ataatagac 549

<210> 445

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 445

aaatgaagtc tctattagca gtattgttgt tgggtgttgc cacgtcggca acaggaattg 60
attggaaaaa tgtgaaacct atcgagcaac ctgccatcat gagcaatttg cctgcatgga 120
gaaaaactgg agaacgtatt gctgggggtg aagaagctac accacaccag tccccattcc 180
aggctcgtgt tcttgttcac atggatgatg gcaaaagtgc attctgcgga ggttccttga 240
tttccaaaaa ctatgtgttg actgctgctc attgcgcga taaagcaaaa tctttcaccg 300
ttgttctcgg agtcacaaat gtaacgatg aaaacgaagc cggaactttg agagtagaga 360
cttccactaa agttgtccac aaggactgga acagtttctt attgagaaac gacattgcct 420
tgtaaagctg catcaccagt tcaattgaat gatcgtgtca attatctcga ttgccgaaaa 480
aagccaagcc acaccctttt gatattgacg cactgcttag gtggggaaga atggagatct 540
gtncacatt 549

<210> 446

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 446

gtancatcag ctgctccacc agccagtga cccaagtat tgggttttcc cgatggattc 60
ccacgagttg taggtggaca cactgccaat gagcatcaat tcccatggca agtatccctc 120
caaagatttg gaagtcactt ctgcggtggt tccatcatca attctgaatg ggttcttact 180
gctgctcatt gcatcagtgg cacttccgga ttcatgccc tagtaggaaa acacgatctt 240
tcaaaaactg aagctactga acagcgatct gccttcaaga gaaccattgt gcacaaatct 300
tatgctggag gctcaatcc ttatgacatc gctttgatcc aagttgccac accattcaag 360
ctgaacgaaa acgttaaagc tgtaaagctt caactaaaga tgaggctcac tcaggacaag 420
ttacattgtc tggatgggga tctacttcta ctacagcttc ccagctccct aataaactac 480
agactgtgac aaaccaatcg accatacccc ggtgtgaaaa ggtctaggag gagccgatct 540

actcattga

549

<210> 447

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 447

ctgtagtcct agtattggcc ttagggctat tatgcagtga tgtttctggt ttcttcagtc 60
ttcgggtcccg aaaaaccaga gaacctgtcg aatttgtccc aaagtccagg cataacgtcc 120
aaactttgtg ggtgactcaa aaattggacc acttcaatcc tcaogataat agaacttggg 180
aaatgaggta tatgtccaat gatgaacact tcaaagctgg tggaccaatt atcatataca 240
ttggagggtga atggacaatc agtgctggag ctttgattgg tggtaacaa tatgatatcg 300
cagtccaaca taatggatat ttattctata cagagcatcg ttactacggg gaaagtcac 360
caacaccaga tgcttctacc aagaatcttc agtacttgag cgtggatcaa tcaactggctg 420
acttggttta ctttgtgatt atgtcaagag tcaaatcaca ggagccaaag acagcaaagt 480
aatcgtgtgg tggatcttac gccgtagtat ggtgttggtc cgctaaatat cctcccagtg 540
cgacattgc 549

<210> 448

<211> 520

<212> DNA

<213> Ctenocephalides felis

<400> 448

at ttggttg cattcaggat gtaaaaggag cttgtcatgc cgatgaattg ggatatttat 60
tcaaaaatga gttgtcacag tttccaaagg aattggagag tgctgtggtg acacagaaga 120
gggtgttgag tttgtggaca aattttgccaa aaacggggaa tcctactcca tcaacaagca 180
at ttgttacc agtcaagtgg ttaccagcta ccaaggacca actggtttat ttatcaattg 240
gtaaaaatct agaaataaaa gttaatccaa tgaaagaacg tatacaattt tgggaacgag 300
ccaccaagaa agattatttg tcacgtttgt aatggaatat ttttaaggaa aattacctat 360
agaacaaata ctactttatc agtaagtatt gtatttcaac tttttaaaac cttgcatatc 420
ttgaattaac agtgatttga taactttttg catttttacg attttaatat tatagtaaat 480
ataaatatga attgtgtttt taaaaaaaaa aaaaaaaaaa 520

<210> 449

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 449

aattcggcac cagaagtgc cgagttagaa gttctgtcgt tttatttgtg atatttgtta 60
gaagtttatt gtaaaaaagt agaagcaata aacatgaaga gtttgctgct attcgtagca 120
gtttttgctg ctgcagcaca cgccttacc acggcggaac caactacgac tgcagttcct 180
tgcacacctg gagaaaccaa acaagaggat tgcaatgaat gcactctgcaa agctgatggc 240

acaggatatc aatgcactga aagagaatgc aaacatgacc cagaatcaaa agcagacgat 300
catggaaaaa tttgcgaacc aggatcaacg aagaaagaag actgcaacac atgcacatgt 360
actcctgatg gtaaaaaacta tatgtgcaca ttgatgatgt gtggacatca tcatgaaaag 420
agagaaactg aaattgaaga agtcaaagaa gtcaccattc aatcacttgc actacccatg 480
tctctggcca aaacaagatt ggattgnatc ttgcaatgcg cagggtnnga caggtctttg 540
accgccagc 549

<210> 450

<211> 154

<212> DNA

<213> Ctenocephalides felis

<400> 450

tgtgtgaaga atattaatga tgaacgagta tttgttgttc tctatgcttt gagtgctgtg 60
tattttgctg gtgtcatggt tgcactgatg ttaactctga ctccggttgt ctgtgtgctg 120
tcgggaatag cattctcctg tctgctggac ttgt 154

<210> 451

<211> 215

<212> DNA

<213> Ctenocephalides felis

<400> 451

ctctagctcg ccatgaatct acaagagcct cgagagttgt tagaattgca gcagtgcaat 60
ttgcactacc cgaaggactc aacacgtgga ctctgtggc tgaaatgaga gaggctttgt 120
atggaaaggc taggaatatt atacaagctg ctcatgataa taatgttaat gtgctttgct 180
tgcaggaagc atggacaatg ccttttgggt ttgt 215

<210> 452

<211> 160

<212> DNA

<213> Ctenocephalides felis

<400> 452

ttatttccca atgcanatgc actgctgggtg atttgactcg tatggctaca attgttgccg 60
acaaactagg tgcccaacct ggttgtccac caattacagc tttgaccttc ttgcgtccat 120
tacatgccat gtttangcaa agggctctg aattgggggt 160

<210> 453

<211> 322

<212> DNA

<213> Ctenocephalides felis

<400> 453

ggggagaatt tttagagatt ttagatgata gtagaaagtgt gtggaaagct cgcaatattc 60
 gcggtcaagt agctcacgtt ccacatacca tagtcacacc tcatgcttgt ggatgogatg 120
 atagttttca gagacaagac tctggcagat catctatagg cgccagtgtg ggcccgtcag 180
 gacccgtaca gagtccatcg tcagttgact ggattcgcaa ccagcatcag gtaaattggga 240
 acgagcaaaa aattgatcct ccaccacctc cgccgttgcc agtaggagaa ttgcgctcca 300
 gacaagaatc accggaaccg gt 322

<210> 454

<211> 210

<212> DNA

<213> Ctenocephalides felis

<400> 454

ggaagcacct taggctgtgc aggacatgta actgtatagc attttgtgcc cagagccata 60
 ggtccgcaat tatgacgtaa cggatcatat gcaaaatttg cggggcaata atattgggtt 120
 cctatactat tttcgtcaca ataataatag ctttgacaat catttatatt tggataaaat 180
 ctcgatgggtg acggacattt gaaaccttgt 210

<210> 455

<211> 464

<212> DNA

<213> Ctenocephalides felis

<400> 455

gnagnnnntn cngcogtcag tgtgctggga attcggcttc gagcggggcg cccggggcaa 60
 ngtagcgtgc acatatattg atgtggcatc tcaatgtcta nccataggta atatacaaca 120
 taccctctgc acacttttgc ttcgagcaac atttcgaata agccgctgaa gaacggaagc 180
 tgggtgcacca ccagtaacag caccaagctg gcaataaatt actgctgtga atcccgcgct 240
 tgggtgaagct cctaaagcgt ccaggtagaa tggatatcgt gccacgaat ctgagaatct 300
 gggttaaagtc aaaagtgcgc caggattcct attccatact agaccgcgac gaacagggtt 360
 tcctggtaaa cgctcacgga ttatctataa taagtaatat aagttgtaat gattanttaa 420
 atttatataa ntaaatattg gntaacgtaa ttataaaaact atat 464

<210> 456

<211> 292

<212> DNA

<213> Ctenocephalides felis

<400> 456

gtcattttac aagtgcatta ttttttagta aaacottcat tatagtaata gcttggaaaa 60
 cataaatgtt acttcatttt tatatacacg gtgaatttgt tggaaatgga ctatataata 120
 aaaatatatt tcttcaagcc gatcgaaggg tggttacaat taaaaaatat atttctatta 180
 tatagtctaa gagaaaaata ctctcataac tcctgtgtat ggtcttcggc aaacggggca 240
 ttcttttact gacagcgaac actttataca ggacacgaca tggccacaag gt 292

<210> 457
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 457
 aaaactcacc taaagataaa aatgttgctg ttcgaaaaca agaactccct gggcatgtaa 60
 cttatcttgc tgtgaattgt gatcatacag ttttgtccat agtgtttaact tctaattgaa 120
 actttatatt acaattttat gatgttactt catattataa acagacaata gtattagtta 180
 gcgaagtaag gctaccacgc cctttgttac aaatgtcatg gaatccctgt atagcaaagt 240
 tagtagctgc tactttanaa aatggcacat tgtggctcctg tgaatttggt aatggngctga 300
 aaataaattc aacaggaaaa tgatgtgcaa gctttatcat tatcatggag cccgaangga 360
 aaacanattg tcattgggac aaaatctggc acattatgcc aattcacacc agatttgaag 420
 ccgtnaaaac atcagtgtnt ccnatatnaa agntccataa ttctgttcat ggtgagcatt 480
 atcagtttga gctacatt 498

<210> 458
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 458
 tgaaatgtga agacgacgtc aacgaatggt ttgacccaaa atctttctcg tgcagaactg 60
 catgcaaaaag tgaaaacggt ttttccgacg gaagagattg taaaaaatat tatcaatggt 120
 tcttggttaa caacaaatgg caaataaaaac attatgattg tccaaatggc ttgcactttg 180
 ataaaacgga gttgcgatgc ataccacgc caccggcgga agaatgcaaa agtgagattg 240
 ctaagtaagg cttaaaccag gaaaacaatc ttgaatagac taattaggat tcaaattacc 300
 ataaagtagt caattaatat aataaataca caaatgatct gtgcaattaa atataaaaaa 360
 tatgtataaa aattaaaatg tataaaattg tattttatgt aaggagcaca aacaaaatgt 420
 cattaactat agtaatttct gattatttaa aatatataaa tatagaagct ttataaaaaa 480
 aaaanaaaan aaanaaaa 498

<210> 459
 <211> 267
 <212> DNA
 <213> Ctenocephalides felis

<400> 459
 cccgctgtcg gaccaaagtc gcttcatagc tgctaaaagt tcccggaag atgcttctgt 60
 atcctccata cggttgatta cgtcaaagac cattttgccg tccgtctctc ttctattggt 120
 cccaaaacta atgccccaaat tgggcatggc ccgcagtatg gcaaccagtg attgaatggt 180
 attactgtaa acaactggtc gatattgttt gaagtcttcg cttgtgaaac ccgactcatg 240
 gataattttc atttggttta cgatagt 267

<210> 460
 <211> 351
 <212> DNA
 <213> Ctenocephalides felis

<400> 460
 ttgcaacaat gatacgggag tggtggattg taatgcacgc caaatttttaa ctgtttttac 60
 tgatgatgaa tggaataaac taatggatga ctccaaaact aacatcagtg ttgtgcagat 120
 gcaaaataat gaattgactc atttattacc gtttcctgca cttgatataa aagttttaga 180
 cttgagtcta aacagaatth taagaattga gccagcaact ttcaaaaatc tccaaaatth 240
 gacagagttg aacttaagta ataacaggth gacatcaaag tttttaattc catcagttth 300
 tgagggtgat tattctccag atgcatatga gccattaaaa tcgatgaaag t 351

<210> 461
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 461
 ctttganttc cnnctcnga agctcntngt gtgctncnaa tttgcggaaa cacctcagat 60
 ttttagcgga gcggaagaaa tttgtggacc ttatgtctgg ggccgttatg atttacttgt 120
 tttacctcct tcattccctt atggtggaat ggaaaatcca tgcttgacat ttgtaacacc 180
 tactctattg gctggcgaca gatcgctagt gagtgttgtt gctcatgaaa tagcacatag 240
 ctggactgga aatttagtca caaattgcag ttttgaacat ttctggctaa atgaaggtht 300
 cactgtatth gtagaatata aaattcaggg aaaattgcat ggtgaagatg ttagagactt 360
 tcattcgctt tgcggactca caacattgaa agaagagtht caactattag gtgaaaccaa 420
 tcaactgact gctctcgtht ttaacttaca aaatttaagt cctgacgatg cattttcttc 480
 tataccttac atgaaaggct 500

<210> 462
 <211> 176
 <212> DNA
 <213> Ctenocephalides felis

<400> 462
 ctgtcactgg ctgatgggtc gacgctcacc tacgatctat acaaagctct taatccggat 60
 aaacatgaag atgaggtaac tctggcagtg tgccctggca ttggtaactc ttcgagtgca 120
 gtctacattc gcacatttgt ccattacgca caatattacg gatacagatg tgccgt 176

<210> 463
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 463

cttattccta aagctagtaa tgccgaaagt aagggtttct atcttaagat gaagggagat 60
 tactacaggt atctagctga agtagcaaca ggagaaaccc gtaacaccgt cgtagatgat 120
 tcacagaaag cttatcaaga tgcatttgag atcagcaagg ccaaaatgca gcctacacat 180
 cctattagat tgggtcttgc acttaacttt tccgtatttt attatgaaat actaaattca 240
 cctgataaag cgtgtcaact tgcgaaacag gcattcgatg atgcgatagc agagctcgat 300
 accctaaatg aagattcata taaagattca actctcataa tgcaattgct gcgagataac 360
 ttaacactgt ggacatcaga cacgcagggt gatggagatg agcctcagga aggcggggac 420
 aactagtctt gaaaacctta cctatccact tccgtatcct taattcacc ttatacaatc 480
 ccttcgttat ttggtaat 498

<210> 464

<211> 246

<212> DNA

<213> *Ctenocephalides felis*

<400> 464

cagattcatg ttgtaaaaca gaaataccaa tgtgtgggaa aagtgaccat cccagcaata 60
 ttccttatac gggttgtata cacagtatga ctgatagatt ggaacatcaa ctttggcttt 120
 taggagcagt aggcctggga atgtgcgctt tgcccgtatt tggaatgata ttcaactgtt 180
 gccttttatat aaaattgaaa gattttattg acgattgaaa aaaattattt gaaattattt 240
 taacgt 246

<210> 465

<211> 477

<212> DNA

<213> *Ctenocephalides felis*

<400> 465

atcttttatca gtgagccagt tagacataac gtgaccacat atacctacag catcccattc 60
 aatgttagat agacctgata catcgagta agtagcctgc gaaagcaaat gctgtaaggc 120
 gtgtccaaat ttgttgaata aaattgatac ctcttttaga gacagaagag aagggtatatt 180
 gccctcagga gggatttaga cttaaaatta atgatgctaa tgggtgtgta tcacaaattt 240
 tacttttatt gcgcatactc aacatccatc ctgaactctt ttggaatatc ttctcttctt 300
 ctctagtata aggatctaaa taaaatcagc cagtggcaat tcagctgcag aatcatgtat 360
 atcaaaaatac cttacatctt tatgccagn attcatattt gcctttcgat aatttttnata 420
 ccatcaactt ttnacacaac tggaatagcc ccgtcnaaaa cctttggaat nggaagn 477

<210> 466

<211> 395

<212> DNA

<213> *Ctenocephalides felis*

<400> 466

ttagcccaag ttccacagca ggtttggcag tcactataat agtatgctcc ctttcatttt 60
 ctctgaacc aactttgcat gtgtaagagc cagcatcatc ttgttcagtt ttttcaataa 120

tgaattgatg ttcttccttt attaattggt aacggtcctt gagatcattg atttcttcta 180
 cttttttctc atctttaaac cactgatcaa caggaccatc tttcaatgga caggtttagaa 240
 ccaatggact acgaatatca aaaagttttt gcgacgtggc ttcaccttct ctggcataaa 300
 cactgctttg gacaaaaaat aataaaattg cactacacaa aaactgcttc atattttattg 360
 aattttcttc ccctogattg aaatagttca taagt 395

<210> 467

<211> 211

<212> DNA

<213> Ctenocephalides felis

<400> 467

ggaagcacct taggctgtgc agggacatgt aactgtatag ctttttgtgc ccagagccat 60
 aggtccgcaa ttatgacgta acggatcata tgcaaaattt gcggggcaat aatattgggt 120
 tcctatacta ttttcgtcac aataataata gctttgacaa tcatttatat ttggataaaa 180
 tctcgatggt gacggacatt tgaaaccttg t 211

<210> 468

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 468

ncantggcca tttttatcag ttctttcttt atcaactgat tgttgagttt ttgctctnag 60
 tgtttcancn aattcttcan tagccgtctc caagaagacc cctcattcta taaacaactc 120
 tcattgattc tccttcgcat tgnncagcca accacacctt tttataaaact tctttcactg 180
 gaagatccaa actcatgatt ttgttgntga ccagtaattc cataccattg ncatcttcta 240
 ataatgctac taattcacia tcttgacaaa tnttattttt aacatctctc attaatggcc 300
 aagaccaggn tcattctgga atatggatta cccaacatgc gaccctgtaa aaagtcttct 360
 tgttgaggat ccttctcaag agataagaaa aattccccaa tatcattttc ttctggataa 420
 taattgagca aagcttttaa tataaatata ggagttcgac atcntcaatg gatattatta 480
 ctgnntccat gccccagaca 500

<210> 469

<211> 251

<212> DNA

<213> Ctenocephalides felis

<400> 469

aataaatata attttattat ataagaaaca tatgtataac aatacaaatt ataactattt 60
 aacagtcttc ttgtgataat ttcttgacgg ccgtatctgt agactttgat acaccttttt 120
 tcggtaagct ccagaacacc tgatccctgc cgaatacgtg agcttcagtt agcgtttccg 180
 gtaacttttg gtgtaaagtt tccggcaaga acattccgga agtcgcgccc accatcatca 240
 ttacggaaag t 251

<210> 470
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 470
 caataaatat tgaatttaca ggcttatgaa caccattaag agtaaaccctc aatttgatca 60
 cagcaccctt ctctcccaac tcaattttct tegtataccc catgtaattg atatgattag 120
 cccttttctc ttctctgaaa taaacccaat tatgtagacc tgttacttca caatttttta 180
 attcagctaa gaaaacatgc tcaaatgctg aactaccgat tttgcccctc ctctggagta 240
 taaattaaac caaatcgttt tcaataaatc cttatgagtt tggggatctc tagtcacaat 300
 tcccttttca ataaaaaaat tcataaatg tgcacatcagg ctgggtggata acattgcac 360
 taacaaagca ttttcttcat ttctttcttg tgcagttaca tgttcattta ctgcagtatc 420
 taattcataa ttattaaata atgggtttcat aagcgctata gttttaatat caaaagctgc 480
 tgattcacia caagcaat 498

<210> 471
 <211> 105
 <212> DNA
 <213> Ctenocephalides felis

<400> 471
 agaggggtag cttttattcc atttattgat gacatgcctt cttttaatcg caaagtggat 60
 ggaccattta taatgctgtg tgtagacaag tataaagaca tgggt 105

<210> 472
 <211> 496
 <212> DNA
 <213> Ctenocephalides felis

<400> 472
 tttttttttt tttttttttt ttttgaacca ttttataaaa ttttataatc aantcantac 60
 tataaattta taataatatc aataacaaaa gttattttat agtagtcata atatactttg 120
 cattaatant tcatacacac acacacacat tacttgtctt ttcaattcca atttgttctt 180
 attctcgtcc ttgttcaaat gtcgatgttc aatgttgtat taagcattct attgtgantt 240
 tagtattgga tttcttaaca ttaaagcagc ttctgatgat attattggca acgcattgac 300
 acaatgatan tttattaaat gtgaaatact ttcaaacatt ntatctctgg tgtcgaacca 360
 ctcttttagg atcaataagt aataaatgct tcttattaac tccttgaata ccagtcagca 420
 catattgcca ggacttgctc gtgactctng aactagaaaa tctncaatng ttttaccaaa 480
 ccctnagaac aactnt 496

<210> 473
 <211> 500
 <212> DNA

<213> Ctenocephalides felis

<400> 473

```
aaataattca ggagccccgc aaagtcagan ttctatatga ctttgaagca gcagaagang 60
gaoganttga ccttcttagc tggtgaaata atccatatgc tagatgattc acatcctant 120
tgggtggaaag gatataatca acatggagaa ggtttatttc ctgcaaaactt tgtaactgct 180
gatttatcaa gttgaaccag aacanttttag aattgatgct aacaagaaat ctgttcantt 240
ttctgatgct gttcangtca aaactatatc tcatgatgat gaaaccagtc ctgaaattaa 300
tgaagaaagt atagataactt tattaaattt attacatgaa gcaaactctg aanatcctaa 360
tgatgataca gagcaaagtc tcaacttaga ngttcangta aataaaatgg gccctctgat 420
tgatgctgaa ttaagaaaat attgacagga aacatgctca acttacgcaa ttgagtggcg 480
atttagtaga agcaacttant 500
```

<210> 474

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 474

```
tttttttttt tttttttttt tttttttttt totgacagac tcgagctagg ngnaaaaaaac 60
tacattttta cagatgcat taatgaaaat taaagtttgc tactaatcca catctatcct 120
tgattctgtt tttgctgcta atgtgccaca atgaaattta gatgctctca tttntntaaa 180
actaagtgtt aaatcatcca ttgtaattgg tcgtagagca tcatgaaatt cctcttctgc 240
gtcttgatg tgtggcacca aaggtgattc agngtgcata taatctctaa ctntatacac 300
agaagcattt cggcataatt ccttaagtc tgatcctgaa aatccctcag tgagttttaga 360
taattcatnt aaatcaactt catctgaaat aggttcattt tctaaaataa gctctagtat 420
cttgaatctt tgntgnctta tgggcatgcc aatatggaat gnggctggca tacnccgnaa 480
aaatgcttta tttnaatttn 500
```

<210> 475

<211> 462

<212> DNA

<213> Ctenocephalides felis

<400> 475

```
ttggtccaac tgtttggcat ttgtggatat attcaaaatc agccaatgct aatttttttt 60
nggtgttaca ttggcatttg ctacagcaca gattttttta gtcactgata tcttatttgc 120
ctatattaaa agagaatata ccttgaagag tggcttgaaa cgaatattga aaggcaaacc 180
tgcaaaatta gctttagaat aattttatta taatgtttga attgaaatgt ntttganttt 240
aaatatgant taagttttta ataaaagctt ttttattttt acattataat attatgccat 300
tagcctatat tgttacacag ttaaatttta angtatttta taaatgggtt tacaactaaa 360
caaatcacia acacacataa atataataa aactggatga aaatanttga atatatatat 420
aantcgtnaa gaangtcaac cttctggnat aatggagctt gt 462
```

<210> 476

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 476
 gnttgactga cctgaaataa taaatatcat aactgcctgt gtaatTTTTT atttgtgtgt 60
 tatacggctct ttaaataaat aaaggTTTTt taaaaatgcc gctaataatc atgacaggaa 120
 taccagtag tggaaaaact catogaacac tagaaataaa aaaatatttc gaggaagaaa 180
 gaaagaaaac agtacatgtg gtttctgaat ttgaagccgt cacaaaatca ggttattcaa 240
 aaaatgatat ttatcttgat gcccaaaaag aaaaaatcgt tcggggcatt ctaaaatctg 300
 aagtttttcg attattgacg aaggataatg ttgttattct agatggagga aattatataa 360
 aaggatacag atacgaatta tattgtggga gcaaagctgc acgagttcct caatgcacaa 420
 tttggacatc tatactctaaa gatgatgctt ggaagttcaa ccaaaattca ccttccatat 480
 caaaagaagt tttgtgagct ttgttttcg atgaagacct aatccaacaa atcgtgggga 540
 tctnctttt 549

<210> 477
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 477
 gatgacagta ccatcattca aaggcaatat aacagtcttc accaatagtt acttgggact 60
 cggtttataaa gctgccagac atgcagtttt tacgaaaaac aatgggagact ccaaactcgtt 120
 gtccagccct tgtattaatc ctatcatcaa aaacaaacct tgggtgtatg gcaacgttga 180
 gtacagtata agtggcactc cgctagaatc aaagaaatta gaagtagatt ggccaaaatg 240
 ccgcaaatata ttagcagaca ccctgttacc tctagtcgac ccaaaaccta taggtttaga 300
 agtacaagat attgcagcgt tcagctatctt ctttgacagg gctaccgggg ctggactgat 360
 agatccatctt ttgggoggcg aaataacagt tggggaattt gaaaaaactg caaaagccgt 420
 ttgcaaaacc gcaaaccacc accagccctt catgtgtttc gatctaacat tcatatcggc 480
 ttgctaaagg acggattcgg attaaaacct gaatcgaatt aaaatactaa aaaagatcgc 540
 accacaaat 549

<210> 478
 <211> 417
 <212> DNA
 <213> Ctenocephalides felis

<400> 478
 gttaagagct gtcaaattat tgtacaaata tttctaaatt aaatacgtat atataattta 60
 ataaataata ttttactact atgaaaagag ccgcaaaaaa ctttctacta gaccgtctgc 120
 acaaaaggcg cgtcatggcc tgcatgggca tcaccgtttt gggaacactc agtcttgat 180
 tccgagttta tcaatacttt actgatataa aacctgaaat acaaagaaaa caaatattgg 240
 caaagaacga gctgttaaaa gaaggagcct cggacatatc attatacgag agcaatatca 300
 cgtaaaggga ataactccta ggatagtaga tataatttagt actgattact ccaaaaatgt 360
 atgttatata atgtaaataa gacttataat ttatttcaaa aaaaaaaaaa aaaaaaa 417

<210> 479
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 479
 gttaaccgaa atccgaatta taaaatttat aaagtcaacg cagcaaattt tgaaatcgtc 60
 gatattgaat cgtggtacta cgatttagcc gaggcaaata aaaattctat tgtaaaccga 120
 gaatggaaac aaatgtacgg ttcattcaag acagagtttg gcttaaattc attgaacagt 180
 tcagagatgc acaggcttgt attgaatatg aaaaccaaca ataaacttgg aaaaaatat 240
 tttgaatata aagttaaacg tgctgacccg gaattaaaaa aaggctgtga taaaacctgt 300
 cttaaaaatc atttgtgccc aatagttacc acagttgtat cagatctcat ccagtgcaca 360
 aatatcatca aatcatcatc aagcattctt cagcatttga atatatatgt cctaggagct 420
 attgtaattt ccaattattt attattataa agtcattttt gttaagttat tataaattag 480
 aataaatcat tatgtggaaa tatgtaacgc ttgaaaagct agacaaatca atattttaga 540
 aaaaaaaaaa 549

<210> 480
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 480
 gcacatttgt gttaagtttt aagcaggaaa gttgaacata aaataacatn tnntnntnt 60
 tttgcgtgtc tttacaatg gatgttgaaa acgtcgaaagc atctggaagt gttccaaatg 120
 ttgctggaga tgcattgtgg gattctatgg tcacggatgg gaacgaaacc cctgcaagtg 180
 ccactggcgc agcagggtta gcccaagaaa gagttaaacg taaagctaaa agaattgtac 240
 gacaaaatag tcgagaaaac gtggcctcag gagcgggtgt accacaacgt tcttgaaaaa 300
 acagccgcag acctagaaat ggtcatggga gagggctgcc caaaaaaggt ggcgcggggg 360
 gtaaaggagt ctggggatta ccaggctcag agctttttaga agagtatgaa gatataatg 420
 atocaaactt tgatactgaa tgtataagtc acaagatat agagttgaag gccgtattcc 480
 tgaagtttct gcagaagaat tcttgaaaaa ggctgaccgc tattcttgat tttgacatgg 540
 gatcccaag 549

<210> 481
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 481
 ggnttattta attagaagac tgtaagttt tagaagatat gactgtagtt taacagttta 60
 tacgttttat aaatcagctt ctgaaaactt aatttcataa tgatttctgg cgattttcct 120
 gaggaccag aaaaggagct gcagagttta gaagatgatg ttgttcaaga aattctcaaa 180
 actggcactg atctgagaca atactcgaaa caaatagaaa aagaactgaa agatgtagaa 240

aataaatcta tacaggatta tattaaagaa agccaaaata tagctagctt gcacaatcaa 300
attggggcctt gogatgacat ccttgaaaga atggaagata tgttaatgag ttttcagagt 360
gttttaggta atatcagttc tgaaataacg tctctacaaa aaaaatctgt ttcaatgtcc 420
attcaattat caaataggca ggctgtcgag gagatctctc acagttatcg aagatatttc 480
tgtactcaaa gtctgtaccg gaattttgga taccagtagc tgagaaagat tataactcag 540
ttcaaatac 549

<210> 482

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 482

gtgaaagaga ggctacaaaa agacttcttg cacagctacc aataagcgca caatcatata 60
gcagttctcc ttatctggat ttgtcattgt ttagctatga tgacaaatgg gtatcagtta 120
tgagagagacc taaagcttgt ggggaatatc ctattagatt ttatgcacgt gattctggcc 180
ttctcaagtt tcgaatatat gcaggagctg ttgctaaaac accacctgca gccactagaa 240
gattggtagc ttttacattt catcctaattg aaccatttgc cattagtgtt cagaggacaa 300
attctgagta tattgtaaac tttcatgtca gacatgctag ctagttttta caaattattt 360
gcaaaagcta aaaaggttac atgatgtaat caattaggtg ggtgttgaga agatttgaag 420
gtaattttta ctcaaaacat atctttataa tgaaattgna atattaacat gcgcataatgt 480
tgtgatcaat ttaaagtggg atagatgatg tgcctttgng cagggatgna gttgattatt 540
atagatatc 549

<210> 483

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 483

aagccgcatt tggtattgag aaatatatgc taaaatatat tgtctcagaa ttaatataat 60
gtgctgagtt tgcattaata ttgaaacggt ttattcattc tgaggcatct atataaaaata 120
aataaatatg aaagcaattt tgataacatt gatagtcgcc gcggctgtgt attccgtaag 180
gcctgaggtt ttcctggaag aaaacttcgt agacgatacg tggacaaata catgggttta 240
tagtgaacac cctggcaaag aattcggcaa attcgtgcac actgccggaa agttctataa 300
cgatgccgaa gcagacaaag gtttgcaaac aagtcaagat gctaggttct acgctctatc 360
tcataagttc aaacctttct caaataaaga caagacatta gttgtcaatt ttctgttaaa 420
catgaacaaa acattgactg tggaggtggg acttgaaggt gtogattgaa gttgaatcaa 480
aaggacatgc atggtnaagt cctatgaaat atgtttggcc tgcatttggg ccaggaacta 540
aaaggtccgt 550

<210> 484

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 484

```
cgtgcaatta aattgtgtca aatttcaaat ctaccctgcc aaaagggcca cattgattat 60
ttaaagtccc tcgcactcac acgcacggca ccactatgtc tacggtcgac aaggaagaat 120
tggtgcaacg agccaaactg gcagagcagg ccgaaagata cgatgatatg gctgcggcga 180
tgaaggctgt tacggaaacc ggtgtggaat tatccaatga agaaaggaac cttttatctg 240
ttgcctataa aaatgtggtt ggggcgcggc gttcatcatg gcgtgttatt tcctccatcg 300
aacaaaaaac agagggttcc gaaagaaaac aacagatggc aaaggagtat cgggaaaaag 360
ttgaaaagga acttcgtgaa atttgttacg acgtactggg ccttcttgac aagtacctta 420
ttcctaaagc tagtaatgcc gaaagtaagg tttctatctt aagatgaagg gagatactac 480
aggatatctag ctgaagtagc aacaggagaa acccgtacan cgcgtagatg atcacagaag 540
ctatcaagat 550
```

<210> 485

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 485

```
gtttcgggcg ccatgaagct aattgaagag aaaactgacc gcgtccacgt cctgaaccag 60
gcgtcgggtg acacctggag cgtggccaga gagattgcgg cagctagcac ggtagctgat 120
gaagaagatg cattttatgt gtgtgatatc ggggatatcg ttaagaagta tcaattgtgg 180
aaggagcata tgccgagagt gcgaccattt tatgcctgga aatgcaatga cagtccgatt 240
gtattggacg tactggccgc actcggaacc ggggttcgatt gtgcgtccaa ggttgaaatt 300
aataaggtgc tgccaatggg tgtcaaacca gaggacatcg tgtttgcaaa cccttccaag 360
ccggcgagtc acatcaggca tgctgctcga cgggggtggc gaagatgacc ttgacaacg 420
aatacgaact tcataagatc aagagatttt acccaaatgc cagattgatt attcgcattc 480
gtgtgattct gaaattgcc aatgccactc gaatgaaatt ggctgcgatg cattcaatga 540
acccgcgct 550
```

<210> 486

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 486

```
atcgcgaaata aataaatgtg gcgatacatt aaatcttcat tattagtga caaggaactg 60
atttaatatg gaagataagc ctgtgaagcc atgtaaagag aagcgaagga acaatgagaa 120
gcgtaaggaa aaatcccga atgctgcacg ataccgcaga tcacgggaga ccgagatttt 180
cactgagctg gcggaatggt tgctcttgc taaagaggac acggaccatc ttgacaagac 240
ctcaataatg cgactgacaa totogtattt gcgaatccga gctgccgtac ctcaaattgt 300
tccagaagag gatatttgct caacctcatt atcgaataag gacaatgaaa acttcttatt 360
acaggcgctt ggaggatttt tgatcatgat ctacactgaa aacgatatcg tatacgtatc 420
aagcaatgtc aacgaatatc ttggaattac tcagatcgat ttaatgggtc aaagatgttc 480
gactcagtca tccttgatgat cataatgaat taaagaaccc ttccccaact caaccacaaa 540
agatgntac 549
```


<210> 487
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 487
 caccacatcc agttgaatta ttttaacatt tactttttgc caacatatgt caacgcgttc 60
 ttttaatctgt gtttgaagat caagtgatat aatttagaat aaagtagttt caattatagt 120
 atgtccacaa tgaatccaga atatgattac ttgtttaaac tgctcttgat tgggtgattca 180
 ggtgttggaa aatcttgtct actttttacgg ttgcggtatg atacttatac agaaagttat 240
 ataagcaciaa ttgggtgtaga ttttaaaatt agaactatcg acttagatgg aaaaaccata 300
 aaattacaaa tttgggatac agcaggtcaa gaacggtttc gaactataac ttcacatcat 360
 tccgtggggc acatggaatc attgttgtat atgattgcac agatcaagag tctttcggaa 420
 atgttaagca atggctcgaa gaaattgatc gctatgcttg tgatagtgn aataaatactt 480
 gaggcaacca agagtgatta actccnaaaa agttgtagac tcactntgta agaattnctg 540
 ccagntaga 549

<210> 488
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 488
 cagcgatcag atttaccaga cacatotcat tggcaaagtt caatttccaa agatgaagct 60
 gcntttgaaa tagactactg caatocctcaa tcaagcaatc aacattogaa gncaactaaa 120
 gataataaca atgacggtac tactgntcca gacgaagatt ttttttctgct cattatgaaa 180
 atacaaagtg gaaggatgga tgaccagcga gcaagtataa atataaaacg agtaatatag 240
 aactctactt taataattgt aataatattg tatatggatt attagattac ttttaatact 300
 agaataatttc caatttttta atatcatttt ttgtggatta catacataga atagtctggc 360
 tatcgattgg tactttgact atgaattgtt gtacctttga accgcaacaa tttctaatat 420
 aaaatgagta gaaggtttat tagcgacata atagtacat tgctataata tagcatttaa 480
 atcaaacaaa ttaaaaatgt gatatttatta ataggtacta tcataaagtc acaaaagccc 540
 ttccggtac 549

<210> 489
 <211> 547
 <212> DNA
 <213> Ctenocephalides felis

<400> 489
 tgacaaaggc aaaaatgggt cgtcgaccgg ccagatgtta tcgctattgc aaaaacaagc 60
 cctaccccaa atctcggttc tgtcgtggtg tgccagacgc taaaattcgt atcttcgatt 120
 tgggtaagaa gaaggcaggc gtagaagatt ttocactatg tgtgcatctt gtatctgatg 180
 aatatgaaca attgagttct gaggcaactg aagcaggacg tatttgctgt aacaaatacc 240

tcgttaagaa ttgtggtaaa gatcaattcc acatcagaat gaggctgcat cctttccatg 300
 ttatccgcat caataaaatg ttatcgtgtg ccggagctga taggctcaa actggaatgc 360
 gtggtgcttt tggaaaacca caaggtagtg ttgctagagt tcacatcggt caaccaatca 420
 tgtctgttcg ttccagtgc agatacaagg ccgctgttgt aaagctctgc gtcgtgctaa 480
 gttcaagtcc tgcagacaaa gactatgttt caagaatggg attactaatt tgacctgatg 540
 ttatana 547

<210> 490
 <211> 353
 <212> DNA
 <213> Ctenocephalides felis

<400> 490
 tgataaattg cctgcaagaa tgagtttcag ggaacgaaaa gaatcggcca aatgcatgca 60
 aaagggttgc ttaaatatac aactagcagc agccagagtt tcaactgatg ttggcattaa 120
 agtaggagaa gccctcagga atgtagtgga acttcgttta gatttgggaa aatgttcttc 180
 agacaatttg aataaatggg aatccagatt ggaagaaatt aatgatgttg tggaaaattg 240
 catcgtgtga aattgtaact tgaaataatt tttcttaact attagtttta tagatgaaca 300
 aatacataat ctaataaacc agcaagtga aaaaaaaaaa aaaaaaaaaa aaa 353

<210> 491
 <211> 373
 <212> DNA
 <213> Ctenocephalides felis

<400> 491
 ntgnttccat ccatattcat caccxaaatc acgttccata tcatctatatt cctcatcttt 60
 actatanctt gcataatctt tgcgtantgt tctcancana atcatagaca caagtcctac 120
 taaaantagt accancatan anctgttana tangctgaac caatgtatcc tatgttgaaa 180
 gaagttanga tccaantact tgtcaaacct attttcaanc ttgacattgc ngggtttcca 240
 tgtcacttcn naagtnaann tcanaacngc tccagtttta nngtagttct ttcttaacnan 300
 atganacant cacatctacn anttgcgtgn cantatatch annnncaaat ttcttgtgtg 360
 tgtagacnta gtt 373

<210> 492
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 492
 attgaaaaag ttaaaattcc aagtaaagat gttgacaaaa taattttctg cctaaatttt 60
 tataaagata tgagatttaa gaacaattga aaatttacta tatatacata ttacaaaaat 120
 tcaaataatt gttattcttt gtcaaatatc ttgttctttt tcatgattac gatcattgtc 180
 agctgggtca tgtttcacat gtgatgtgta tatatcatat cccaaggata ttgtattatc 240
 atataacact ctaaacctat gaggtaatat ataaaagttt atgatttggg ctggcggcca 300

aactacccat tcagcagcgt aaagcctcca agcctttttc ttaatttcct ctattaattc 360
 atctttacta gttttttcta gtatagctaa tgtaataaag aacatagaaa tgcattattgg 420
 tgagcataca atttgatcta tcacaacttt ttctatgact attcctattg tgcgtcctgg 480
 caatcgttta tctagata 498

<210> 493
 <211> 308
 <212> DNA
 <213> Ctenocephalides felis

<400> 493
 tgggaacagt taatttataa taacaaaatg aaaggaacat tattaatatt atcatgtcct 60
 gtgatcatga taagtgccga atatgctgac gtagatgtgt gccagattt ggacgatgga 120
 acttttcttg ctgattcaaa caattgccaa aatttcttca ttgtgatgg aggccgagct 180
 tggaaaatgt attgtccagg atcactttta tggaaatgatc acgaaggaa atgtgattac 240
 gcacaaaatg tagaatgtta ccaaccagaa taaaacattt taatatcaaa aaaaaaaaaa 300
 aaaaaaaaaa 308

<210> 494
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 494
 ctattacaac taggttaatt tgtagtaag ttttgttata actgttattg atattaaata 60
 tgtattatgt ttatatatgt aaacgaatta taatttttgc tctttgatta cttctactct 120
 ggtgcattaa cttttattca actagattaa attttttggt tacttcctat gcctcacatc 180
 agtgccttc atgtgatcag gagtatTTTT tcgatctgga ctttgatctg tatcactctc 240
 ctccatttca gctttgttgc gtttcttttc ataaatgaga ataatcgcg ataaaattat 300
 tacttcagca cagatcccaa aaatggccac aaagcagcta atttatcttg aactcgaacc 360
 aaggntgtag aattaacagt aattccaatg ccttgattag tagcaatata tgtatattct 420
 cctcgatcgc tttttcagcc aaatcaattt ccaagcagaa tttggttatt gcatgatcaa 480
 caattgatcg acgntgatc 500

<210> 495
 <211> 244
 <212> DNA
 <213> Ctenocephalides felis

<400> 495
 gatcggttgc aatttgtcat tgcaccaagc ataaattgat gggtcgggtg catagggttat 60
 aaaagaattg ggatttgtgc atttcatgac ggtgcaatca gcttctgacg atttcttttt 120
 acacatattt ttagaatgat catatacata gttagggtggg cattcgaaaa cctgaccttt 180
 accatctttg cagaataagt atcttgtgca gtctttcgga tctggctgat atcctacaac 240
 cgcg 244

<210> 496
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 496
 ccaatatcga agtgcgtggt cggccgccac gctcaatgga gatccgttta gatgtgtttg 60
 ccaataacaa acgcatttat ttcgacagac cttctctcaa gtttcaacac ttccaagggtg 120
 ttactgtata tacaccaaca tacatcttga atcagtctga agttgttata atgtttgctt 180
 ccggagccgg agtagaagtt gtagaaaatc aaggatttat gactgctaga gtttattttac 240
 catggacatt tattaataaa actgctggtc tactcggaaa ttggagttgg gatatggcag 300
 acgactttgt caaacctgat ggaacttttg tgcctgttaa tctcaacagt tttgaatctg 360
 ttcataaaga tttcgcacgt cactggatgc tggcggatcg tgnaaatgaa cacctcggag 420
 cngnactctt nacttcgnga atttggtcgc ncagccagtt attatgcaaa ttcctcattt 480
 taccaaactg ggttaaagaa 500

<210> 497
 <211> 411
 <212> DNA
 <213> Ctenocephalides felis

<400> 497
 ttgtcatint tgttctactt tgaagttgtg cgctggacaa gaaaccccaa ttacaacaat 60
 caattgtaga gactcaaatt ccgatgctcc attttgtgta gatgatatgt gctcatcaaa 120
 acctggggaa aactgtaaga cggcagaaac tacatgcgcg gntgnaggat atcagccaga 180
 atccgaaaga ctgcacaaga tacttattct gcaaagatgg taaagggtcag gttttcgaat 240
 gccacctaa ctatgtatat gatcattcta aaaatatgtg taaaaagaaa tcgcagaagc 300
 tgattgcacc gtcatgaaat gcacaaatcc aattctttta tacctatgca ccggcccatc 360
 aatttatgct tgggtgcaatg gcaaaatgga cccgatcggc cctgaaatgg g 411

<210> 498
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 498
 ccccatatatt ctttgctcgt ttagttgngc aacagcagca tcttttaaag aatacaaatg 60
 gggcatttcc atttcagttt ttgctaggca taatgctttt tcaaacattt caattgcacg 120
 ctcaagattc cctcgttgaa cctcaatagt tcctaaagtt tcatagccaa attcacattt 180
 gggatcaagt gaaatagctt cattaatcaa ttgaactgca gtatcaacat cacctgtcca 240
 ttgcaacctt agtaatcctt tatgaacata aacaatagca ttattaggct caatttcaat 300
 ggctttagag aaatatgaat ctgctttgga gtattgtctt tgatcacaaa gcacttgtgc 360
 atataaagna tagcactcta tacagagagg aaatttttta atggcattgn caaaggccca 420
 attatttctt ttgccttatt catgtcntaa cagcaaaagc atatcgatgg tcgtatatat 480

tttttgaca taagccat

498

<210> 499

<211> 598

<212> DNA

<213> Ctenocephalides felis

<400> 499

tccaatataa agaaactctg tcacattgcc atagaaagga ttcaatacaa aatttatgcc 60
aacttataac tggagatgcc ttactctatt ctatgtttcn agaanaatca gttcccgtga 120
cttgcccttt gaaaggacct ttcacattca catataatan gggacatggc gaatgtatga 180
atccagtatc gaacattgaa agttgcactg aagacagtcg acttatttta acataccagg 240
catgtccgga tgttcatgga actgaaagtg cantggaaga actggagtgt ctagcaacat 300
ggaatgaagg taatgctcga tacctggttg gtaaaatgaa tcatcgacat gccataacca 360
gtgaagatcg atacagatgc tttgtttatg agaaaataac tggaattgga gataaagtaa 420
tggaatacaa attgcacaat catgagatgc tacttgcaat ggattgttta gtgctacaga 480
agggtcacgga caatgacttt aanacaagct gctattcctg agcgggtgctg tttccgaatt 540
ggttanctgc tggaccatca cactggcaaa cagttgataa tcacaantta ctggttca 598

<210> 500

<211> 462

<212> DNA

<213> Ctenocephalides felis

<400> 500

ccaaatattg cagttcctac acgaacaata ttgctgccca tttcaatcgc ttgttcaaag 60
tcatcagaca ttcccataga taaattaact tcttttggtt ctaaaattta ttccttgcat 120
aattgctcac gacattgttt taaagtgaga aaatctgggt tgggtcctaa acttgatatca 180
tagccatatt ttccaatagt cattaaacca tcaacaagta ggtttgggca attttctttc 240
acatatttgt atanagttgt tgcttcattt ggggtgaacac catgtttttc tatttcacca 300
cttgtantta tttgaatcat aactcntaat ttatcaccat gaattttatt agctgaatct 360
aattttgacc aancattctg cacactgtcg ggntaattta aatgagtga ttgtttcnac 420
cacnatatat cncagggtatg ttaacacott aanaatttta nt 462

<210> 501

<211> 216

<212> DNA

<213> Ctenocephalides felis

<400> 501

agactgaccc tgggcccagg cgtttgctta anttgtgacg ttaaagacga ccaaccacag 60
tgnacgaatg atgaaataag cccatccaca actgctccaa gttcaaacgt gaatgaaagc 120
aatggaaaacc tcaccgaatc acaaccctta agccaaaata cttcaacaaa tactccatta 180
gaaacatcaa atacctcact agcagaaagc agcagt 216

GenBank

<210> 502
 <211> 489
 <212> DNA
 <213> Ctenocephalides felis

<400> 502
 ttgttggtatt ccatgcccac tgaatccagt tgctatatat gtattattgt gatatggatg 60
 caatcctata atgccaattt catcaaaggt attgtattcg taataaccag cccaagcact 120
 ttttaacttta attgcttcaa aacatggaac acgatgtgct aaatgtggcc aaacgttttg 180
 ttcaaaaataa tccatatcta catctaagtt atcgactggc gggtccttgg caggatctgg 240
 tgaacgacca cagatatatc tgccacctaa tccatctctt ctaaaatatg tatttggtgg 300
 atcgattgtc agagggtgat ttaaacctgg aggcgaatga tgttgacact caaagctata 360
 cacatatctt tccacaggta aaggaattga cagcaatcct tctccagtag caattttagc 420
 taatctggca acatgaccag actgangtcc tgcagctatg acacatattg caaactttat 480
 tgggtataa 489

<210> 503
 <211> 425
 <212> DNA
 <213> Ctenocephalides felis

<400> 503
 gatcggttgc aatttgtcat tgcaccaagc ataaattgat gggtcgggtg cataggttat 60
 aaaagaattg ggatttgtgc atttcatgac ggtgcaatca gcttctgacg atttcttttt 120
 acacatattt ttagaatgat catatacata gttagggtgg cattcgaaaa cctgaccttt 180
 accatctttg cagaataagt atcttgggtc agtctttcgg atctgggctg atatcctaca 240
 accgcgcgatg tagtttctgc cgtcttacag ttttccaaa ggttttgatg accacatatc 300
 atctacacaa aatggancat cggaatttga gtctctgcan ttgatngttg taattggggg 360
 ttcttgtcaa gcgcacanct tcaanntaga ccantcgtgn caaangttcc caactgctta 420
 ttatt 425

<210> 504
 <211> 203
 <212> DNA
 <213> Ctenocephalides felis

<400> 504
 gaattgtttg agaattgtc agtggttaatc ctttgagatg tggatcgaag gattgacaaa 60
 agtctctgaa ttctgtcagt gtggggccta atgttaagtc ggagtgcgtg caatttaaaa 120
 gaagacttag aattgcttgg gttgcacatg cattgttgat cacctgtttt gcaaagaata 180
 ttttatcgag tctaccatca tgt 203

<210> 505
 <211> 317

<212> DNA

<213> *Ctenocephalides felis*

<400> 505

```
attggagaat ttggatTTTT cttaacacct atgataggca aacaaaaagt agcttttaaat 60
tcaggatggg taacatgtgc ttttttgaac ctaagagcca taggtctgat aaatctttcg 120
aattttggag gtttacgtgt aaagccttca ccaacaaaag taacttttgt aaccattctc 180
ttccacgctt tccttctgga ctttctgat gataaaactt tgaatacttc agcatctgcc 240
tgagctctga cttttggata ngcacatccc attttccggc cttctcttta cgtttctgtt 300
tgatcatatt agagagt                                     317
```

<210> 506

<211> 518

<212> DNA

<213> *Ctenocephalides felis*

<400> 506

```
ctctaanaat cattgacgct ttttcntttc tttcactgcc tttgttttan atggttgtcc 60
tcggttcana aaagacgtaa ngacttctga catttctggc atatcagaca tctttgtgaa 120
actgctgagt tgcctcattt cctttttagt ttcaggatca ttcattcatt tcggtaaaan 180
cataattaat aataatggca anaccatcat taatatcata tgattgaata ggaaatcagt 240
gattttccat tgttccctta cttgaaaata tctgaatttt cctaattgtc ttaattctaa 300
agggtatggc acttgatga cttgagatgt ttgtaagtga ttcactttgc gtgctcngaa 360
ttttccttta nagttaattt ctactctaac aggctcatac atataantt ngttaactgc 420
atccaanacg tangatccag atgggacatt anttataaca aangtgccgt ctcnttcaaa 480
aaacctctgt atnancccc gttcaanant attttggg                                     518
```

<210> 507

<211> 373

<212> DNA

<213> *Ctenocephalides felis*

<400> 507

```
ttttttanct aantgtatgt cagaaaatgt cactaaagca acacctgtga tgcttaaaca 60
aactgcaatt aatttgata tagtaaactc atctccgata ttacaaggga ataaagcagc 120
taaaacaagt gtgaataaac ttgacgttga agataaaaact gtaaccgtan cagcttctgt 180
ttgtgataat gccagctgaa atgtgtaatt agcagcaaac cacaataagc agaataacaa 240
agcaattttt gctattcttt gtgtgggcaa acgatttgcg gccgcgctg cagcctcgct 300
tgcccttaaa cttgcgtggg aagataactc tgccaataat gcttctgttg ctcnattatc 360
acgcatttgc cgt                                     373
```

<210> 508

<211> 430

<212> DNA

<213> *Ctenocephalides felis*

<212> DNA

<213> Ctenocephalides felis

<400> 511

tttttttttt tttttttttt tcgctttata aacattaata tttttgaaaa atgatattta 60
cataaaatga tttctctcaa tgaaatttaa aaatttctta atcgttttta aaaaataaat 120
ttatgaatcc catttcttat actccattcc atctggngga cgaacctcaa ctttctcttt 180
gccacctcg ttccaatttg ngctaagt 208

<210> 512

<211> 355

<212> DNA

<213> Ctenocephalides felis

<400> 512

tcaatatggg tcaccttaat aacattatct caatatcact ttatgttcta ttttaagcagg 60
cctttaccaa atatttttagc tctgccactt gtcttattag cagttaacca ttggttgaat 120
agtaaagaaa aatattttat cattttattcg gcatctgcaa tattaatatt tcgggctgag 180
ttagctcttc tactgggatt atttctgcta tatgatctta ttcaaggaag agttcagatt 240
ttaagattaa ttaaaatatg cttgccaca gcagctattt taatcacatt gactgtatta 300
gttgattcat tattctgggg acgactagtg tggccggaag cagaagtttt gtggt 355

<210> 513

<211> 518

<212> DNA

<213> Ctenocephalides felis

<400> 513

aatttttgga atactttgaa atatattcct aaatttaaatt ctttaacata tacataccac 60
tttattaatg gagttttatt tggcatgcta attcttccat taccttggtg attcattatg 120
tgtagattg ggcctgtat ttattaggac gaagaaaatt gaacatgcca ttccttctat 180
tattttttat ggcatttggt gtggtattgt cactaccatt tgggtgtatct gaagtttctc 240
ttgtgtcaga caaatgcaac aaagtcgcac gacctccatc taaacgacta ggcccccaac 300
ctgaagtgta tgcattattca ccagtatgcc ttgcgagact gtcattagca tgtgatccat 360
ttgctgaaag gctgtttggt tgagacctat gccctgcac catttcatca tgagaaattg 420
tattccgatg ataatcaggg tttgttgatg ttctaattgg cacaggtgga ggcggtggtc 480
taacgctgac agtgacagta tttgaatact ggggtggt 518

<210> 514

<211> 382

<212> DNA

<213> Ctenocephalides felis

<400> 514

ttccggattt ttggtcaata ctttagctag acgttctgca ggaatgccgt atcttctcaa 60

atttgcacn cttaaaaacta cgacaattgc ctcatcacia tottcttttag ccagggtatc 120
aatagctata tttgtttgct ctaatgtatg atccccagac caacaaaatt gagcatgtgc 180
gtgcatcatt tttattgttt ccaatctagc tttttcattt ttaggtgggc ttgaatgatt 240
aacaaattct agagcatctg cttcacgcgt gtgaccaaatt atatcatact ggaatctatc 300
ttcgtgaccc tcaaaaacttt ccatcagaag aactactgct tctaattgct atctaagcgt 360
ccatcatatc cattaaatct gt 382

<210> 515

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 515

tcaaattaga ggaggggaaac cggcaacagc ttgaagagaa cacaattcct tgntgcctct 60
aaagtgcagt caacttttagc tacgttaatg ntagttgaac cgacaacctt tttagctaag 120
tcatcccaag taggtgctaa ccttttacaa tgtccacacc atgggtgcaa aaacttgaca 180
aaagtcacac cctttgaaat gccttggtca aagtttgatc ccacaagatt aaagacacct 240
tcttcttcat tagtgnctgg aatgcganta tcatctctat cttcatcatc aatttgatga 300
gcaccatgtt tcttctcaac ataagccttt aattcttctg gattcctttg ccagagtatt 360
tttcacactt tttccatctt caatccataa taaagtagga taacctttta cttcaaattg 420
tgtgcaaadc gggcgngngt gagtgcagtc aatttttagta atgcttacag agtcttcatg 480
ttcaaaagt 489

<210> 516

<211> 309

<212> DNA

<213> Ctenocephalides felis

<400> 516

tttttttttt tttttttttt tttttttttt ttaatgattt aattaattta ttntaagcca 60
ataattgata ttaattatgc attaatcatt gnatttatac tttcctagaa aactatacat 120
cacatgttga aacaaattaa ggttcattggc ttctgcctt tccttagcgc ttgtttttaa 180
tttgatccat tctttccgaa tcttggtact ntttggtccc catttntcat tgggagtga 240
cacgtttttc aatgtatcat taatggaatg ttttctattt ttcaaataata tccaaattgc 300
ccaaagngg 309

<210> 517

<211> 215

<212> DNA

<213> Ctenocephalides felis

<400> 517

atctacaaca gcaccgataa cggcaacaac tttncottgg gcacctgctg ctgctttggc 60
agcataactc ctgctgttcg ataaaatcga tgcgatttta cccgattctg ttttgctcag 120
ggttcgcaaa gtggaattga ttacggagtg catcttgtaa taaaatgtat agccagttga 180

gttgaattaa attgatctca cctgtaagct actgt

215

<210> 518

<211> 275

<212> DNA

<213> Ctenocephalides felis

<400> 518

agcaaaacgt ttccataact aggatatacct acttgaaaagt gatggctatt gttggtactt 60
attgcatttg gtccaaaaat ctcaggctta taatattggc ccacagaaga atatcctggc 120
ctgtactgag aaaatgcgta aggtggtgga tggtaatcac agttcgccca ttggacaatc 180
gagatggcca ccaaaaatat tacagctttc attttagtca cttggtgaaa tatcacgaat 240
tgaaatatatt caaccttcgc aaaaggagct tgtga 275

<210> 519

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 519

agtattagca tcagcccgga caacaacgca gtaggatgtt agcaacatta ttcaaggatg 60
aaagggtgtca acatctacca gcatattcaa ttttgagaa aatgtattta gatcaaataa 120
ttcgcagatc tgacttgcag gagtttgaag cgcttttaca gcctcatcaa aaggcatcta 180
ctntggatgg gtcatnaatt ctggatcgng ctgngtttgg acataatttg ntttctggca 240
gcaaattgta taataatata acttttgaag aggtaggatc tttanttgga atnttagntn 300
gcaaagnngn naaaattncc gccaatgnta ttaaaagggn gaatgnatgg ggcntnaatn 360
anattgntna cattggcctt gggcgogaac cccttaggcg aattttngga tattcantac 420
actgggggog gttgngntnt gtttttagggg ccaattcnct tatngngnnn gtttaaatac 480
tngcgggggt tacaannn 498

<210> 520

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 520

atattttgta tagtttcttt tgttgaatac ttcataata tattaatata atttaggttt 60
cctctcgcaa gttcctgtgt cgcagctttg agtagcttgg ttaaatactg ttccaatcgg 120
acattgatca ggaactggct ctcctttagg acgtaaacac gtgaagaact tccggcatgt 180
tgcgctcgttc ttgaaagcaa attttccacg tgctcgcat tgcccgacac aggtttcgct 240
ccttggggaa aactcggcgg gttcttcgca ttgcaatacg gttcctcttc cggccataca 300
tacgacgtac aatgatttat caccaatgta cggaagcacc ttaggctgtg caggacatgt 360
aactgtatag cattttgtgc ccagagccat aggtccgcaa ttatgacgta acggatcata 420
tgcaaaattt gcggggcaat aatattgggt tcctatacta ttttcgtcac aataataata 480
gctttgacaa tcatttat 498

<210> 521
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 521
 ataacaatan tttgagacag caaactgaat cctgtatnga ttttctttgt ccttggtgca 60
 gtctgaattg cggattatta tattcgctac tgaaacattt gaaactgtgc catgctagat 120
 ttacctttac atatgtgcca ttaacacaat gtgctagaat agatgtagct ataaacgagt 180
 tgtatgatgg ttcttatggt ggggcacctc aagatttgct aggcccttct ggatttgcat 240
 tttcagggaa tggaccgact cgaagaacta ttgttacaca tatattagtt tgccgaccaa 300
 gaagaagtaa acccagttta tcagaattct tggaattgga tgaaaatgaa tgcgacagcc 360
 aaagacctta cattacaggt cacaatcgct gtatcatcat acaataacat gcctaccgat 420
 tcagctaaag aactagatgt tgattcagaa ngagaaagtg atcctttgtg gttaagnaaa 480
 agacaatgtg atgatagacg 500

<210> 522
 <211> 312
 <212> DNA
 <213> Ctenocephalides felis

<400> 522
 tngaaaactt ttttaggccc ncaannngag cggncgccgg gcagggacca ggatattcat 60
 ccatagcagc tttcaagtat tcttcaagat ctttttcaaa tgggtgtattt tcaataatag 120
 gcacacacaa ttcttcatca tatottaaat ttcttttttag tgaatagcta taaataccct 180
 ttatcatttc taaatgagtg catttaaaaa cttttcagga cattttaatg taactaaaac 240
 tgcagcagaa gaatgtgtat gtattacagc acccgatta tggtttctgt atgcaagcat 300
 aaataatggt gt 312

<210> 523
 <211> 258
 <212> DNA
 <213> Ctenocephalides felis

<400> 523
 atgaacgtat atttatattga gtggcaataa ttttaattcat gcaaatcata atgataaatt 60
 tgtaattggt tagtttcaag aaattgtaat attgtaattc atgtaaataa ttgattgcat 120
 tccaaaatgt ttttattttt gtttttattt taatagtttt atttaaaatg ttgttggtgt 180
 attatatatt cagtatttta aaaaataata aatttactcc cgttgctaaa aaaaaaaaaa 240
 aaaaaaaaaa aaaaaaaaaa 258

<210> 524
 <211> 204

<212> DNA

<213> Ctenocephalides felis

<400> 524

cagttaatga tctacaactt gttcaaaaag ccttaactga tggatcgaac gcggtgtggaa 60
gttcaatcga atccttccta aatgttattg aaactgaaga agcacctcca acctttaata 120
gaactaacia attcactcaa ggtttccaaa acttgataga tgcctacgga gttgctagtt 180
acagagaagt aaatccagct ctgt 204

<210> 525

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 525

tttttttttt ttttttttaa ttgataaatt ttatttaaaa cttgcaaaaa ttatttaaac 60
aatttacgca tagcacattt cgctcgtgca aatctcttcc tcgcattcca gacaagtttc 120
cttatcgcat ttgtagggtg cgggtgcagcc tctcttcaet ttatctcogt caatatctaa 180
gtagcatttg cccatgcatt tgggtcttctg ctgcactttt tcagggtcgt caaggcaatt 240
ttcatcattt tcatcacaag aaacacattc gtgttttttg gcatcaccat tgcattcgtt 300
tttgtcacia gttgggcaac gttctgggtt tttctcgac atttttttca gattctgggt 360
cttgaacagg ttgctgggtg accctaattt tatggcatca ccttgtgcat ttaaaatact 420
caaacaagta tcttgnnggt tgagacaaac ttccttgga tcatctttag cgttgcaaac 480
cctgcgattc ttgggaaaac 500

<210> 526

<211> 259

<212> DNA

<213> Ctenocephalides felis

<400> 526

cagcagctcc agcggctgca gcggctccag cagccgcaat tccgccagcg gcggttggtc 60
caccacgggc gcccattgct ccaccactg ctccgctacc agctcctccc gctccagcgc 120
ctgctcggcc agcatttctc gcagaacggg cgagagtatc tccagccgcc tgggtgggaac 180
tgaacgattg agcattactt ccgccatata ctgaagaacc atatgcggat cctactggag 240
gcacatatgc ggtgttagt 259

<210> 527

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 527

tgancgccc cagaaaaccg ttcgacgcga taatctgtta actggcggtg aattttacgg 60
tcaaaaagat tcaaggatat gtaatttttc taattgtgaa caaagtctaa gaagtaccaa 120

agttgaacat acaaggcgggt cttctaatat ttctcatatt tcgtttggag aaggttcttt 180
tatacatctt acaacttaca ataagcatag gggcccttgc ccagctgctt tattggaaac 240
taataaagca ccattttaa atacacgtca agtgaaggcg cataaatttt atgtgcctaa 300
agttgtcacg gaaaaatagg aagcctttta aatatcatto agaatttatt tacttatcaa 360
tgtcttccat tactgtatat acttatatat atatatatat atatatatat atatatatat 420
atatatatat atatatatnn natanaggtn acaaatatnn cgcnnatnng agagngcgcg 480
cgcnnatatt gtntcntacn cnnatatntt gngntatana ganntntata tatntggcac 540
nttatatgc 549

<210> 528

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 528

agataattgt aaccagttt ttgatgaatc attcgaatac ataatttctc aaggagaatt 60
gtcgacgacg caattggaag tgacggtagc tacgcagaaa ggatttttat cgggaggtag 120
tcctgtgatc ggtcaagtga ttttagatct gaacgattac gatttatctc aagcttcaac 180
ccattggctg gatctatgcc cagaatttaa gtcataaatg tggatcattg ctttogaatt 240
tcaatcaaaa catgcgtatg ctattaaatt aaatgtgtaa ttctaccttt aatttttgc 300
cctacagttt aaatttacgt ttgttatttt taggtataaa tatacgcttt attttgttat 360
tttataaatt atcaatattt aataatgctt ttatattaca aataatactt atgtgttgca 420
caaatttggt atatagatgt atatactgta ctaatattta ttttttcaac ataaatttct 480
tttgcattgt ccttacattc tagatattca attatcttaa taagtcttaa tcttaaaact 540
attatgcgc 549

<210> 529

<211> 441

<212> DNA

<213> Ctenocephalides felis

<400> 529

cagttaaata ataaggagaa gatggattac aataaagcac aaccacttca ccagcaatca 60
caatttggtg gaagacctca aactcaacaa ccaggaccac tcagagcgag tgcaatgcaa 120
tcaaaagcac tcctgcaagt tccattctca cctgcaaaca gttgtccaaa ttgtggtgtc 180
ggcttcgtca ctgacaatta ctctgtctgc gcggtctgcc taggagcatg ctgctttcct 240
ctgggacttc tgtgtctgtg ggaatgaagg agagatcctg cgtcaactgt ggagcagctt 300
ttaactagga tatagagaaa attatgattt aatgtctttg taactgtcat ttttattact 360
tgatttttaa tattagatca gatgtttcat tttatgaaat acaaaaaata tatattaaga 420
agaaaaaaaa aaaaaaaaaa a 441

<210> 530

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 530

gtttggcctt tgtctttcaa aatattaatt ttccaaaaac atataccaaa cgtatttgca 60
 caaaatttat tgtacgtttt agaatagtat ataaaattca tgtgtccata aaatattata 120
 aataagtaaa tttccaagtt ttcacacaaa ttattgagta agccgaagcc tctttaatgc 180
 gccattgcgt ttttaattata gtgtttttaa cagcaaaaat ctigattcta catcattaaa 240
 atgagcttca acgataaaca gtcgaattca ttcccaaaag atgaatgtgc aaatcgatta 300
 gaaggattgc atgtacagag atctgacatg aataaattga taatgaatta tcttgcaca 360
 gaaggcttta aagaggccgc tgaaaagttc caaatagagg ccggtgtagg tacttcgatg 420
 gagttaaatt ctttagacga tagaatatta ataagggatg catacagtct ggacgtatca 480
 agaagctcag tattagtaat cagcttatnc cgagttgtgg atacgcagna tcttattcat 540
 tgcacactc 549

<210> 531

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 531

tattcattta taaataaaga aatatgtctt tgccagagcc acttcaaaag ttgttcagcc 60
 acatcgacca gaataagaaa aggtacattg atgtattatc tgaagctgta gcaatcaaat 120
 cagtgtcggc atgggcagac agtcgacaag aagttgttaa aatggttaaa tgggctgaac 180
 aacgattgaa ggctctcggc gcaaccacag aattagcaga tgttggaana caaactcttc 240
 cagacggcag agttattgac ttacctcagc tattgtctggg tcagttggga aatgatccta 300
 aaaaacatat ggtatgtttg tatggacatt tagatgttca gccagctctg aaagaagatg 360
 gttgggatac tgaaccattt gtattgactg agaaagatgg aaaattattt ggtagaggag 420
 ctagtgatga caagggtccg ttatcggttg attcatgcaa ttgaggctta tcaacagact 480
 gacaagattt accagttaac atcaaatgtt tttgaaggct ggaggaatct gtagtgaagg 540
 atagatgatt 550

<210> 532

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 532

gtcaaacgtg acaatgacat catacataga tgattttttac ctggcagaag ccaaaaaaga 60
 aattggaaat gatctataca aagagaaaaa ttatcatgga gccctacaac aatattcaaa 120
 agccatcgtc ctatatccag attcttcctc ttactatgga aacagagccg cctgttatat 180
 gatgcttttt caatataaaa atgctatgga agatgcaaaa aaagcagttg tgctcgatcc 240
 aaattttgct aaagcatatc ttgcgattgc aaaatgcagc atattggtag atcaccggng 300
 caaataacta acctgaagng gaatntgcat taaggcaagt ggnttaaatt ggccttgccn 360
 cctttanant attnccnttg taaccaagaa nagaaaaattt ggggggttnt tttggcntnt 420
 tttttggggn aanaccacgt ttcccaaaaa ataccctttt ataatttntg tngnggtngn 480
 aaaaaanccc cccccccctt ccccggtttt tccccggngt tttttgggnc tcccgaanaa 540
 aagggggggc 550

<213> Ctenocephalides felis

<400> 539

tgatgattat gaacaagtta aagctgtagc tgaatattat gctgagtatt ctgctttatt 60
cgaaggctct ggcgatggt 79

<210> 540

<211> 140

<212> DNA

<213> Ctenocephalides felis

<400> 540

gtaggggcac aaattccacg aagtttttgt catagaagtc atccaaagca cgcataatatt 60
tactgtatga aatcaaccaa ttgattgaan ggaaatgttt cctttgagct aatttcntat 120
ccaaacccca naacacttgt 140

<210> 541

<211> 462

<212> DNA

<213> Ctenocephalides felis

<400> 541

ttttgatgtc atataaatgc cancaattaa accaantaga ccaatagcag aaccaaagat 60
ttcaacaatg agaattttga caaatagtcg agaattggca gcatcagcaa gagctgctcc 120
agatccaaca ataccaacag cgataccgca gaataaattc acaagaccaa cagccaaacc 180
agctccaaaa agaacataac caccatcca atttgcttct ttatatcctg ctttttcaaa 240
aacagatttg tctgtgtatt ccgctaacag tctgacaga acaattgctg taattaaacc 300
ataaatagca acagcttcac agaaaataac tgaaattaag ttttttggtt tgattctggg 360
cgctttcaca ccacctocta caatggatgt gcctgtggta tgaattccaa caagctgctc 420
caacanctga naatgctacg gntaaacaat tcctaaggga gc 462

<210> 542

<211> 396

<212> DNA

<213> Ctenocephalides felis

<400> 542

aattgggttg taaagcctcc ttgggcgga actgacaaga tcacacttga anttgccaag 60
ctcttgaaag acgatttcct acagcagaac agctactcat catatgatcg tttctgcccc 120
ttctataaaa cagttggtat gttacgtaac attattgctt tctatgatat ggcaaaatac 180
gcagttgaat ctactgcaca aagtgaaaac aagattacct ggaataccat tagagatgct 240
atgggcaata ttctatatca gttgtcctca atgaagttca aggaccacgt caaggatggt 300
gaggcaaaga tcaagagtga ttttgatcaa ttacatgagg atttacagca agcattccgc 360
aacttgnag attagattat tgtgaatata atatgt 396

<210> 543
 <211> 283
 <212> DNA
 <213> Ctenocephalides felis

<400> 543
 anacactttg tctttgttaa tttctgtttc tacgtagcgg agctttctct ccatctcatc 60
 acaacgcctg acttcgttga cgaatttacg ttgaaatgaa ttaacatcaa cattcaagtc 120
 tctaaattgg acggttccag cttctcccaa ttctgaaact gaagtgtgag cagcttcagg 180
 ctgaataaac atctggcata aagccatctc ctacttcga aacatagccc ccatgatgtg 240
 gcctattcaa caccgctcc ttgatacaaa ataagcgggt tgc 283

<210> 544
 <211> 346
 <212> DNA
 <213> Ctenocephalides felis

<400> 544
 gacatttttag aactttcaac aaagatatgt tcaacacaac aacagactat gtaaaaactg 60
 tatacatata taatggaata ttttttgtat cataattaaa ttgtaaatct catgatttac 120
 taagcgttga cattaacagt attagcagca gctccttttag tttcaactgg ttggtccttc 180
 tcgagttgct tgccaaggta ttccaatta tgaaccatta atttctggac tgccaacaaa 240
 gcttcataatc ttacatttgg ttctcatat gccataaatt gcataaccag ttgtttgcc 300
 ccaagctggt cgatgatatt tttgccacgt ggataatgcc tgacgt 346

<210> 545
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 545
 atgtaacctg ggaaaccacg acgtccgggt acttcttcac gggcagctga tacctcacgc 60
 aaagcttcag catatgagga catgtctgtt aagattacca acacgtgctt ttcacattgg 120
 taggccaaga attcagcagc tgtcaaagcc agacgtgggg taatgatacg ttcaatagtt 180
 ggatcattgg ccaagttcaa gaacaggcac acattctcca tggaaccatt ctctcgaaa 240
 tcttgtttga agaactctggc agtttccatg ttgacacca tagcggcgaa cacaatggca 300
 aagttatcct catggtcatc caaaactgat tttcctggga ttttaactaa acctgcttgc 360
 ctacagatct gggcagcaat ttcattgtgg ggcagaccag ctgcagagaa aataggaatc 420
 ttctgtccac gagcaatgga gttcatcaca tcaatagcag agataccagt ttggatattt 480
 cctcangata gatacgag 498

<210> 546
 <211> 393
 <212> DNA

<213> Ctenocephalides felis

<400> 546

```
tctccaatat caaagcaggc tacagacaga acaaggggat cacgagagct ttcaagtaag 60
nggatcaana tacgcaataa ctcataattc ttctcattga gacgtggggc attctctctc 120
cagaacttag cagatttgtg aacagggtgac cattccaatc tgccggactt gatttctgta 180
gcatattcat caaatgagct aaggtcttga atggaagctt gtaatttttc ggtcaaatat 240
tcaacatcag caacgatatc ctcatcatct gaacgtcttt gttccaggat ggataattgt 300
ttcaatacct tgctttgcac cattgcaatg caatgctcct tggccacctg ttgatcttcc 360
actttctcaa ttaaattcct ataaacagcc agt 393
```

<210> 547

<211> 649

<212> DNA

<213> Ctenocephalides felis

<400> 547

```
cgagtacaag gaatgttcca gottatggag cccaaagtat tattgaaggt cgcgaaagct 60
gatttagatt tggtagaatc agttttaact gatgccatgg atcagtataa acaacagatg 120
gttaccaaag aagttgtcgc cactatcaat agggaagcat ttttgccagt agaattgctgc 180
ggtggagttg aattgagtgg acttaatggc cgcattaagg tttcaaacac attggaatcc 240
cgtttggaact tgattgctca acaattgatt ccagaaatcc gaactgcctt attcggaagc 300
aatgccaacc gttaaattcac agaactaaata ttcatatcaa attacatgat taggatgcaa 360
agtgaacctg attcgtatta gtaaaaagca tcaagatcaa aatgaatgca caatcagatt 420
cataatgagt gtttttgcac gatacacatt ttttcagaca atagttcata taattgatgc 480
ttccctttgc ttcatagtcc tatttcaaaa atgttaatag atgcacattc cgtagaagtt 540
atatagcatg ctataattga atgatgaata ttacatttga aaattttgaa taacttaattg 600
gnctaaatca taattttctg aaacatgcat tttattcaac actttttgct 649
```

<210> 548

<211> 360

<212> DNA

<213> Ctenocephalides felis

<400> 548

```
tgctcttgtc gcaaacacat ctaacatgcc tgtgcgcgct cgtgaagctt ccatttacac 60
cggtatcacc ctcaagtgaat acttccgtga tatgggttac aacgtatcta tgatggctga 120
tttcaattct cgttgggctg aagctttgag agaaatttca ggtcgtttgg ctgaaatgcc 180
tgccgattcc gggtatccag cgtacttggg agctagggtg gcctctttct acgaaogtgc 240
tggtcgtgta aaatgttttg gtaatccoga acgtgaaggc tcagtatcaa ttgtaggagc 300
tgtatcaccg ccoggtggtg acttctcaga tcccgtcact tcagctacat tgggtattgt 360
```

<210> 549

<211> 357

<212> DNA

<213> Ctenocephalides felis

<400> 549

ggattcatto gatcagcttc atcatcatat acatatatat gttttttgng ngngatttaa 60
taattggctt aaattttaca tcttgnttgt tttaaacttt gttgncaacc atatcgacgt 120
tcagtttata gtagacatat ggatagtaat caagcttggc caaaacccan accaggaata 180
tcaacgttct cagaagcacc ggagctttgt agagcactgc tgtcaagtgt ccgtacaatt 240
gattgagcac atctcgtaat ctcttgatgc tcttcttaga tgggtgaagg caacttcagt 300
gaatgcttct gtgcatggat ccatgttaag gcgctacgag ttttcgttga gtcaagt 357

<210> 550

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 550

cactnatttg gcccaattta tgaacgtgct ngacgtgttg aaggcagaaa tggttctatc 60
acccaaattc caattttgac tatgccaac gatgatatta ctcacctat tcttgatttg 120
actggttaca tcaactgaagg acagatctac gtagacagac aactgcacaa caggcaaadc 180
taccacactg taaacgtatt gncttccctg tcacgtttga tgaaatntgc cattgggtgag 240
ggtttgacac gnagaganca ctctgatgtg tccaatcaat tgtatgcttg ctncgcctt 300
ggtaaggacg tgcaggctat gaaggctgtc gtangagagg aagctttgac acctgatgac 360
ttgttgnact tggaattctt gcgaaatttg agaagaactt tatctcacan ggtanttatg 420
agaaccgcac agantttgaa tctttggaca ttngctggca antggtggga tcttcccnag 480
gagatgttga agagaatacc 500

<210> 551

<211> 116

<212> DNA

<213> Ctenocephalides felis

<400> 551

ccatgtcagt ggccaaagtt ggttgataac ctacagcgga tggaatacga cccaacagag 60
cagatacttc agaaccggct tgagtgaaac ggaaaatggt gtcaatgaaa agaagt 116

<210> 552

<211> 294

<212> DNA

<213> Ctenocephalides felis

<400> 552

caaaggctat caaaaaatgt cttttctaac aagtgtttac atatttgctt tgtatcgaat 60
actattttaa aaatatttat tatacatgca tcaatgatac atattttaa tttacaatac 120
ttaatacttt tagtaaggct actatgattt gttgaataat tttaaataatt caaaatccat 180
tacaaataat aaatactgct aaacaattag caacatactg tatggataat acataaaatt 240

actcggagtt caaaaaaaaa aatnaaaaaa aaaaaacaaaa aaataatcat gagt 294

<210> 553

<211> 436

<212> DNA

<213> Ctenocephalides felis

<400> 553

tttgcgtctn tgggcccctgt cacttgctca cgcacaactt tcanacgtat tgnngaaaat 60
ggtgntgncc atgggattga gccaaacaac atatactggc tcgattatgc tctatgtgat 120
attctgcgng ngggcactat tcacaattgc catcctagtt atgatggaag gcctttctgc 180
gtcttgcaca cactgcgtct tcaactgggtg gagttcatga gtaagttcta ctctggtttg 240
ggttatttgn tccaaccott ctgcttcaaa actattttgg acgcgngnga taaggnaagca 300
gaataatcaa tttatctatt atttaaataa attaaaaaac aaattagtta taaagaaggt 360
ataaaaaagn aaaatattgg ntaaaaattg nttttaaaag nctgnaagng atttgaata 420
acacttaatt tgtagg 436

<210> 554

<211> 223

<212> DNA

<213> Ctenocephalides felis

<400> 554

aataagtgtt gttaaaactt ctttgtattg ttccttatta cgtgtaactt ctoccaaact 60
tttgcgggct tcatccaaaa cattcctcac atgatcttca cgaactttca ataccttcaa 120
tcgagcttgg ttgagcatgt tggatgattg aattttcttt tgcaattcaa cttgtttttc 180
cttctttctca tagtattcca taatctttag tcgctgttgc tgt 223

<210> 555

<211> 418

<212> DNA

<213> Ctenocephalides felis

<400> 555

aattcggtaa tactaggaat gtanaacana aatataatag aacaataatt cgatttcaac 60
aaagatattg tattttaatt ttaatttata ttgatcacia attaataact cgttacattg 120
taataatact aaacaatcta tttaacaatta aaaacactcc tttcgcaaac ttttaattctc 180
cttcttgatg cgtgtggatg tcattctgta aataatggag tccctgccag ggtccattgt 240
ggagatcgag atacagatag caagtaacga gaagaaaaag gctactccga accataaaat 300
gatgttaaaa accaccgggt aggagtcgtt gtattcttta gctaggttga aatcgggttc 360
ttttggagca tcactgctt gccttgctta cgtgttaaga cgtcattaga gggttagt 418

<210> 556

<211> 289

<212> DNA

<213> *Ctenocephalides felis*

<400> 556

```
cgtagccag accagtaact gagaaattac ccgcaaacca cccattgttn actgggcaac 60
gtgtnttgga ttctctgttc ccatgtgttc agggaggaac cactgccatc cctggagctt 120
tcggttgtgg aaaaactgtt atttcacaag ctttgccaaa tactctaact ctgatgtcat 180
catttatgtt ggttgccgag aaagaggtaa tgaaatgtct gaagtacttc gtgatttccc 240
tgaattgagt gttgaaatcg acggcgtaac tgaatctatt atgaagcgt 289
```

<210> 557

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 557

```
caaatccttt gacattagat aaacgtagta ctatttaagc acaaaaaggt ataataataat 60
aaaatggcta gccagactca gggaattcaa caacttcttg ccgctgagaa aagggtgct 120
gaaaaagtct ccgaggccag gaaacgcaaa gcacgcagac taaagcaagc taaggaagaa 180
gctcaagatg aaattgagaa atatcgtcag gaacgtgaga agcaattcaa agaatttgaa 240
gcaaagcata tgggctcacg ggaaggagtt gcggctagaa ttgatgctga cactcgtgtc 300
aaaatcgatc agatgaacaa agctgtatct gttcaaaagg atcccgtgat gtatgaaatt 360
ctgaagttgg tctatgacat caaaccagaa ttacacaaaa attatcgcaa agaataattt 420
atattattca gagctccagt gaaaaaataa tatatttaatt aaagattgtt tatatccaca 480
tttttgctta tgtgaaaaaa tcttaataga tcaatctgat tttagaaatc tagaatttta 540
antagggtc 549
```

<210> 558

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 558

```
ttttgattgt tattacttta ttttaacaaa ataccgtgaa aatcatttgg tataattaat 60
aaagaaccac atcaaaatga cagagtattg gctgatattc gcaccagggt acaagacctg 120
ccagcagaca tgggagacga tgaacaatgt caccagcaaa caaaattcat tatctgtcaa 180
ctacaaattt catataccag accttaaggt cggtagatta gatcagctcg taggtctgtc 240
tgatgatcta ggcaagctcg atgtattcgt tgagcagatc actcgtaagg tagcaacata 300
tcttggtgag gttcttgagg accaacgtga taaacttcac gagaatttaa tggcaacaaa 360
cagcgatctg catcttacat aactcgcttc cagtgggaca tggcaagtac ccaatcaagc 420
aatctcttcg taacatctca gatatcatca gcaagcaagt aggacagatc gatgccgctt 480
gaaaacaaa tctcagcgtg cacaattgaa aggagtttgc agacttggag aagaacaaac 540
tggaanttgt 550
```

<210> 559

<211> 371
<212> DNA
<213> Ctenocephalides felis

<400> 559
tggtattggg agaattaatt tgtgttttta aaaaagttcg tcttttttga ataactgaat 60
gaatgagatt ttttgggtaa caattttcaa ttagagttat ttttactagg gataaatttt 120
gtggatggaa agtttgggtga gacaacaaaa tagcatggtc tgtaaggga ataatagtgt 180
ttatcttata gtttctggga cagtatgagg aatagtgtaa gtatctaccc gacctgtag 240
tttttctata ccaatttggt cgaataaagt tattagtgtt gtaaaccgat acatccaaga 300
aattaagcct gttgttattt tgtagttcat gtgtgaaaat tatattattg ttaaaattat 360
tgaagagatc t 371

<210> 560
<211> 228
<212> DNA
<213> Ctenocephalides felis

<400> 560
ctcgtaaadc acttgggtcac cagtttgatt tgtggtagtc tcattttcta taggnataaa 60
catcagntgg ttcattgaaa gggttggttg ggtgcttgtc ggcttcgctg aagggttg 120
tgcttggttc gggttctggt tcgtcgaaag gatttgctgg aacgtcttgc ttggcgtaac 180
tggtgtcccc gtagacttgt ttcgaagatt caccaattgt tttgacgt 228

<210> 561
<211> 269
<212> DNA
<213> Ctenocephalides felis

<400> 561
agatctacta atgccgcgtt taccactgtc acagcaattc cgcaaaccag caaccacana 60
tataantatg atgctattgt taaatgntca ataatgcac aaattattcc acaaatnccg 120
catgagacca tcacgaatac aagaattgga agctttccca cagagttaat aatagcacct 180
attatgggaa atccaatcgc atatccagct tccaacatta aagaatgcat aaatgcctgt 240
tcttcatttg tgtctttaca ctcggtcgt 269

<210> 562
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 562
aaaaatccaa cggatgtttc gtcatacaga cctatcagtt tgcttcctat aatttccaaa 60
atactggaaa anataatata caaaaaaatt aatcatgatt taccgacaga catctggatg 120
ccgtcacatc agttcggggt caggcataag cactcaacga ctcaacagat ccataggatt 180

Table 1. Demographic characteristics of the study population	
Age (years)	50.0 ± 10.0
Gender	Male 50, Female 50
Education (years)	12.0 ± 2.0
Occupation	White collar 50, Blue collar 50
Marital status	Married 50, Single 50
Family size	2.0 ± 1.0
Income (USD/month)	1000.0 ± 500.0
Smoking status	Smoker 20, Nonsmoker 30
Alcohol consumption	Drinker 10, Non-drinker 40
Exercise frequency	Regular 10, Irregular 40
Stress level	High 20, Low 30
Health status	Healthy 40, Sick 10
Cholesterol level (mg/dL)	180.0 ± 40.0
Blood pressure (mmHg)	120.0 ± 20.0
Heart rate (b/min)	70.0 ± 10.0
Weight (kg)	70.0 ± 15.0
Height (cm)	170.0 ± 10.0
Body mass index (kg/m²)	24.0 ± 3.0
Glucose level (mg/dL)	90.0 ± 10.0
Hemoglobin A1c (%)	5.5 ± 0.5
Triglyceride level (mg/dL)	100.0 ± 30.0
HDL cholesterol (mg/dL)	40.0 ± 10.0
LDL cholesterol (mg/dL)	120.0 ± 30.0
Uric acid (mg/dL)	4.0 ± 1.0
Creatinine (mg/dL)	1.0 ± 0.2
BUN (mg/dL)	10.0 ± 2.0
Calcium (mg/dL)	9.0 ± 0.5
Phosphorus (mg/dL)	3.0 ± 0.5
Sodium (mg/dL)	135.0 ± 5.0
Potassium (mg/dL)	4.0 ± 0.5
Magnesium (mg/dL)	0.8 ± 0.2
Vitamin D (ng/mL)	20.0 ± 10.0
Vitamin B12 (pg/mL)	300.0 ± 100.0
Folate (ng/mL)	10.0 ± 5.0
Iron (µg/L)	100.0 ± 50.0
Zinc (µg/L)	100.0 ± 50.0
Copper (µg/L)	100.0 ± 50.0
Manganese (µg/L)	100.0 ± 50.0
Selenium (µg/L)	100.0 ± 50.0
Chromium (µg/L)	100.0 ± 50.0
Molybdenum (µg/L)	100.0 ± 50.0
Cobalt (µg/L)	100.0 ± 50.0
Nickel (µg/L)	100.0 ± 50.0
Vanadium (µg/L)	100.0 ± 50.0
Strontium (µg/L)	100.0 ± 50.0
Silicon (µg/L)	100.0 ± 50.0
Boron (µg/L)	100.0 ± 50.0
Fluorine (µg/L)	100.0 ± 50.0
Iodine (µg/L)	100.0 ± 50.0
Chlorine (µg/L)	100.0 ± 50.0
Sulfur (µg/L)	100.0 ± 50.0
Phosphorus (µg/L)	100.0 ± 50.0
Calcium (µg/L)	100.0 ± 50.0
Magnesium (µg/L)	100.0 ± 50.0
Potassium (µg/L)	100.0 ± 50.0
Sodium (µg/L)	100.0 ± 50.0
Iron (µg/L)	100.0 ± 50.0
Zinc (µg/L)	100.0 ± 50.0
Copper (µg/L)	100.0 ± 50.0
Manganese (µg/L)	100.0 ± 50.0
Selenium (µg/L)	100.0 ± 50.0
Chromium (µg/L)	100.0 ± 50.0
Molybdenum (µg/L)	100.0 ± 50.0
Cobalt (µg/L)	100.0 ± 50.0
Nickel (µg/L)	100.0 ± 50.0
Vanadium (µg/L)	100.0 ± 50.0
Strontium (µg/L)	100.0 ± 50.0
Silicon (µg/L)	100.0 ± 50.0
Boron (µg/L)	100.0 ± 50.0
Fluorine (µg/L)	100.0 ± 50.0
Iodine (µg/L)	100.0 ± 50.0
Chlorine (µg/L)	100.0 ± 50.0
Sulfur (µg/L)	100.0 ± 50.0
Phosphorus (µg/L)	100.0 ± 50.0
Calcium (µg/L)	100.0 ± 50.0
Magnesium (µg/L)	100.0 ± 50.0
Potassium (µg/L)	100.0 ± 50.0
Sodium (µg/L)	100.0 ± 50.0
Iron (µg/L)	100.0 ± 50.0
Zinc (µg/L)	100.0 ± 50.0
Copper (µg/L)	100.0 ± 50.0
Manganese (µg/L)	100.0 ± 50.0
Selenium (µg/L)	100.0 ± 50.0
Chromium (µg/L)	100.0 ± 50.0
Molybdenum (µg/L)	100.0 ± 50.0
Cobalt (µg/L)	100.0 ± 50.0
Nickel (µg/L)	100.0 ± 50.0
Vanadium (µg/L)	100.0 ± 50.0
Strontium (µg/L)	100.0 ± 50.0
Silicon (µg/L)	100.0 ± 50.0
Boron (µg/L)	100.0 ± 50.0
Fluorine (µg/L)	100.0 ± 50.0
Iodine (µg/L)	100.0 ± 50.0
Chlorine (µg/L)	100.0 ± 50.0
Sulfur (µg/L)	100.0 ± 50.0
Phosphorus (µg/L)	100.0 ± 50.0
Calcium (µg/L)	100.0 ± 50.0
Magnesium (µg/L)	100.0 ± 50.0
Potassium (µg/L)	100.0 ± 50.0
Sodium (µg/L)	100.0 ± 50.0
Iron (µg/L)	100.0 ± 50.0
Zinc (µg/L)	100.0 ± 50.0
Copper (µg/L)	100.0 ± 50.0
Manganese (µg/L)	100.0 ± 50.0
Selenium (µg/L)	100.0 ± 50.0
Chromium (µg/L)	100.0 ± 50.0
Molybdenum (µg/L)	100.0 ± 50.0
Cobalt (µg/L)	100.0 ± 50.0
Nickel (µg/L)	100.0 ± 50.0
Vanadium (µg/L)	100.0 ± 50.0
Strontium (µg/L)	100.0 ± 50.0
Silicon (µg/L)	100.0 ± 50.0
Boron (µg/L)	100.0 ± 50.0
Fluorine (µg/L)	100.0 ± 50.0
Iodine (µg/L)	100.0 ± 50.0

```
<210> 567
<211> 284
<212> DNA
<213> Ctenocephalides felis
```

```
<210> 568
<211> 500
<212> DNA
<213> Ctenocephalides felis
```

<210>	569
<211>	358
<212>	DNA

<213> Ctenocephalides felis

<400> 569

acaattgtgt agtgcagtgg ctaactgtat tagatgatat agtcaattta aaattcagga 60
actaaactta aattagtatt acgttgctgt cttcacatta tgttctatgc tcatcagttt 120
taagttaaag ttggccacca ctcatatata gcaaatagat aatgactatt gcgaaagaag 180
tctagactat aaaaatacta atttatttat ttatgtagta tatttttagt attgtgagt 240
aaagacgttt aaaatacatc taattcaaaa tagtcaaaaat gattctaacc acattttgta 300
tgttttaagt atgcaagcat gtttgcttga gatttggtta agaacctaat tgtttagt 358

<210> 570

<211> 368

<212> DNA

<213> Ctenocephalides felis

<400> 570

acgtaatagt ctacttctac taggtgttca ctcgtcaaaa tcacgaattg aactggcgga 60
ttaggaattg ccaaataatt tatattttac tcgtaacaaa tattttttta attgcaataa 120
aaaaaatctt gtaatttagg ctgtaaaact tcattgntta aatatagaat atgtaatatg 180
atnagttgan gttggnatat ctataaagtt ttttttngtt tnatgttnc aannatcaat 240
caangttngc ntttttctga ngatattgaa nattttgata caantattaa aatattttga 300
tttttagttt ttttttgc atatngctga tcaaaatant ataattttt aanacantat 360
gctggttg 368

<210> 571

<211> 255

<212> DNA

<213> Ctenocephalides felis

<400> 571

acaatgtttt acatcattaa cattaatttg cattcatcac aatgaacaaa actgatcttt 60
cgttcaatca ataacgtaat ctagaacaat tgtaatgaat tacttttatt attataagaa 120
tccaaacatg tattattcct taaccatttt ctaaagatct atggcatatt taaacatatt 180
aatatatttt gatactattt attttcatta aaataagcaa aattggcata ttaaaacaat 240
ttaaatagtt ttagt 255

<210> 572

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 572

accactgtat ttcttgaagt caaaattaat atactcagaa atatcataaa aactgttggc 60
ttatttagta aattaatcaa aacgttggtg aatttatgat tgctttgttg tcgtatttgt 120
aaaggaata aattgaacag ttgaataccc aaaccatcaa ttgaattaaa agtagtatta 180

agcttaaaaag tcgatccctct gatagttcta ttccttgtga catagtagag actagacatg 240
gaagataaat taaaatactg gggattattht tttataaaga gaagtgtaat aagtaggaat 300
atgttaggaa cggtaagaat attatacttc tgaaaaatat ttctacaact tgtcatagag 360
ttaagagaaa acatgattct tagtgctctt ttctgaagct tgaaaacata taatgaaaat 420
atcttctata atatgtatga aaatcaaato atattttgnt atattcatca tcaaactttc 480
tcatattttg cttctttttc 500

<210> 573

<211> 341

<212> DNA

<213> Ctenocephalides felis

<400> 573

actgtttaat tgtatatgta acttttactc gttactctta tcacagagta atcaaattga 60
caagatgacg cgttcttaat taataaatga tttggacttc tattattttat tataagttgg 120
taaatecttg aaggcaacac agcaatttga tgatatcggc ctccgcctat ttttcctcaa 180
atgaataaca caaaaatcct atcgataatt aactaacaat agcacggact tataatacta 240
aaacgaatta tgatttagtt cacattatcc ttacggataa atgaagtgtt tgttacaact 300
tacaataaat gttgtaaaga gttgataaag ttacaaattg t 341

<210> 574

<211> 359

<212> DNA

<213> Ctenocephalides felis

<400> 574

acataatacat atttatgatc cttctattag tagattatat aattaggttt ttgtctttga 60
actgattatc tgcaaataac gtaaattaga aaacgcacaa gagaaaatgt ttatatgatt 120
ccgatattta ctactattht atttttcaca aagcatagaa ttagttttta tatgatgctt 180
gatcaataat ggtgtttgaa attttaaaat taatatacga agctatttaa tatcacgcaa 240
agaaactttg atgtttataa gacacctatg ttacacata catacacata tattgtaaat 300
attaatactt ctttataaaa tccatgcata tttgctttgt catattctta ttattctgt 359

<210> 575

<211> 353

<212> DNA

<213> Ctenocephalides felis

<400> 575

acataatata taagttcgtt ttatattaat tgaaatatat aaaatattcg aatttaaaat 60
taatgaataa ttaaaatgtt cgtttaaatt gatttaagcg taatggattt agtggatttg 120
tttgattttg atgctctact ctgtagtcgc ggctgggttcg gtcttttcgg tcttttcgat 180
cttattgggtc ttatctgtat tatcggctctt atccaccacc gattogagct caagggtttt 240
gagttgaagt ggcttttttt ggatgtaata agataataaa tttacatcat tacggatttt 300
tccactttct gggtagtaag atttcctctt gttgtaggcc ttgtcgctg cgt 353

<210> 576
 <211> 399
 <212> DNA
 <213> Ctenocephalides felis

<400> 576
 acacttgacc caatactgat gtcgtcaaat attcntattg taaagtcata tataaatcgt 60
 caaacagttt ttgagttggt tcaagtattt tgttttgata gtctagttca aaagatttta 120
 aacacatcgc ccagcaaat atattgcgtt ttcttcgtaa aaatcaaatt tcgtacactt 180
 gactcaatac cacacacaaa tcattttatt tttctgtctt cgaaaacaga tattaatagg 240
 caaatgttat gtttcagtaa tctctagtat ttttttcat tgacatgttt atatacagat 300
 tttaaatata ttgtgttttt tttacaatcc caacgtctct gttatgtctc tcagcactcg 360
 acaatttttg aacctatcga cggggtgtcg tagtgccgt 399

<210> 577
 <211> 1000
 <212> DNA
 <213> Ctenocephalides felis

<400> 577
 accgtaatta aatattggaa tgattttaat tgatttcaaa tagattatta tgaatattgt 60
 aactttcatt attcatatatt agtagatgaa atgtaagtag cttataaaatt gaacgacggt 120
 ctttatacat gtttatatga aaagtaaata aacaaacctc atagaaattt gataaactga 180
 attgcaaagc tcaaattatt tatttcaagt atataagcga gctttagaat tttcgataga 240
 attaaaatta aaaaatctga tgattttcaa tattaataaan aaagaaaatt aaaaagaaag 300
 tggaattttg agatgaaaaa aacaatttat ttctcaaaaa actaatcgat tctaagcatt 360
 gtcaatgcaa gcaatatgtn tttttaaatc attggaattt agatgctgcg ttttcacaaa 420
 aactagattt tagcactttt tgctcttcat ctaccaaacg ggtggacctg cctatgcaaa 480
 aatctaaca aaacgtctcg accgtaatta aatattggaa tgattttaat tgatttcaaa 540
 tagattatta tgaatattgt aactttcatt attcatatatt agtagatgaa atgtaagtag 600
 cttataaaatt gaacgacggt ctttatacat gtttatatga aaagtaaata aacaaacctc 660
 atagaaattt gataaactga attgcaaagc tcaaattatt tatttcaagt atataagcga 720
 gctttagaat tttcgataga attaaaatta aaaaatctga tgattttcaa tattaataaan 780
 aaagaaaatt aaaaagaaag tggaattttg agatgaaaaa aacaatttat ttctcaaaaa 840
 actaatcgat tctaagcatt gtcaatgcaa gcaatatgtn tttttaaatc attggaattt 900
 agatgctgcg ttttcacaaa aactagattt tagcactttt tgctcttcat ctaccaaacg 960
 ggtggacctg cctatgcaaa aatctaaca aaacgtctcg 1000

<210> 578
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 578

atgaaacaat tttctaaatc atttttctat ttcattgttca agagaacaga cggacagacg 120
 aacagataga taaacaggtg gacacttaac acgttaatcg ccatgataat atcagaaaaa 180
 aattttacatg cactatggta actttattag ttgaaaatgt atcgaaaact ccatgtagca 240
 aagaaaaaaa gatattttga aaaattcctg cacattattt ttttatgccca catatatatg 300
 actgatatat atgtcagaca taatttataa actagtcggn ttggtattta gccttgaggc 360
 aagttacatg aacttcccga tatgttttaa taatcaactt aatcaataaa aaataaatta 420
 atttatgagt cattaaaagt attccgagtg gatttattat acataattga aaacgaacga 480
 acactttgac tcnagagtatt 500

<210> 582

<211> 469

<212> DNA

<213> Ctenocephalides felis

<400> 582

acaacgggga tttgattcca accacaacac caacgcaaac atttttgttc taggcatttt 60
 tatacaaat gaaatagcac aattttaaacc aaaacgaaac agaacaagta aaccgcgcaa 120
 attatcaaat cactctaccg acgccgacgt cattttgcta ttctcgggat tttagtgtgt 180
 caaaaaacc agatgttgat aacaggttga ctgccgaccg tagtggtgtg ccattagtgt 240
 ggaaatttat aaatatacat atgattcaga atatgagtaa cacttggtta tatttataac 300
 gaagtttatt cacagaaaaa tatagaattg aatttagaaa ataacttttg tatacgaagt 360
 gtaagttacg gtggttcaaa gtagagagag ttttgccggt ttctcctttc caaacccggc 420
 gtctctgggt gccagagcaa tcatgtttgt tcttcggaag cctgcgcgt 469

<210> 583

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 583

actgactgna tatccattgc gcatttngta taatngaath ttnnnagcaa taaactttga 60
 nggattgagg ggtatntcna atttggncat tgattcccat tactatgtga tcagtcattt 120
 cgtaaattnt attttcctna ttnttcataa ccactatact gtgcgcgnt gtnatgancg 180
 nggcnatnat aacgaatttg ataaaacgna tncctaataa anatttgatt ttgtacacct 240
 aggtcgngan cangcnaaga cnaataatgc agatgnncat cacagnnggg ganngannaa 300
 angtgatgt aganggtca tntttggcct atagnagtc gtattacaat tcantggcng 360
 tnagtttaac aacgtcgtga ctgggaaaac cntggngata cccaactgaa ngacttgnag 420
 cacatncacc tttnnngnag gtngggtaat ntncgaagaa ggnntgnacn gatnggcctn 480
 ccaacagttg ngcannctga 500

<210> 584

<211> 500

<212> DNA

<213> Ctenocephalides felis

1997-1998		1998-1999		1999-2000		2000-2001		2001-2002		2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-2010		2010-2011		2011-2012		2012-2013		2013-2014		2014-2015		2015-2016		2016-2017		2017-2018		2018-2019		2019-2020		2020-2021		2021-2022		2022-2023		2023-2024		2024-2025		2025-2026		2026-2027		2027-2028		2028-2029		2029-2030		2030-2031		2031-2032		2032-2033		2033-2034		2034-2035		2035-2036		2036-2037		2037-2038		2038-2039		2039-2040		2040-2041		2041-2042		2042-2043		2043-2044		2044-2045		2045-2046		2046-2047		2047-2048		2048-2049		2049-2050		2050-2051		2051-2052		2052-2053		2053-2054		2054-2055		2055-2056		2056-2057		2057-2058		2058-2059		2059-2060		2060-2061		2061-2062		2062-2063		2063-2064		2064-2065		2065-2066		2066-2067		2067-2068		2068-2069		2069-2070		2070-2071		2071-2072		2072-2073		2073-2074		2074-2075		2075-2076		2076-2077		2077-2078		2078-2079		2079-2080		2080-2081		2081-2082		2082-2083		2083-2084		2084-2085		2085-2086		2086-2087		2087-2088		2088-2089		2089-2090		2090-2091		2091-2092		2092-2093		2093-2094		2094-2095		2095-2096		2096-2097		2097-2098		2098-2099		2099-2100		2100-2101		2101-2102		2102-2103		2103-2104		2104-2105		2105-2106		2106-2107		2107-2108		2108-2109		2109-2110		2110-2111		2111-2112		2112-2113		2113-2114		2114-2115		2115-2116		2116-2117		2117-2118		2118-2119		2119-2120		2120-2121		2121-2122		2122-2123		2123-2124		2124-2125		2125-2126		2126-2127		2127-2128		2128-2129		2129-2130		2130-2131		2131-2132		2132-2133		2133-2134		2134-2135		2135-2136		2136-2137		2137-2138		2138-2139		2139-2140		2140-2141		2141-2142		2142-2143		2143-2144		2144-2145		2145-2146		2146-2147		2147-2148		2148-2149		2149-2150		2150-2151		2151-2152		2152-2153		2153-2154		2154-2155		2155-2156		2156-2157		2157-2158		2158-2159		2159-2160		2160-2161		2161-2162		2162-2163		2163-2164		2164-2165		2165-2166		2166-2167		2167-2168		2168-2169		2169-2170		2170-2171		2171-2172		2172-2173		2173-2174		2174-2175		2175-2176		2176-2177		2177-2178		2178-2179		2179-2180		2180-2181		2181-2182		2182-2183		2183-2184		2184-2185		2185-2186		2186-2187		2187-2188		2188-2189		2189-2190		2190-2191		2191-2192		2192-2193		2193-2194		2194-2195		2195-2196		2196-2197		2197-2198		2198-2199		2199-2200		2200-2201		2201-2202		2202-2203		2203-2204		2204-2205		2205-2206		2206-2207		2207-2208		2208-2209		2209-2210		2210-2211		2211-2212		2212-2213		2213-2214		2214-2215		2215-2216		2216-2217		2217-2218		2218-2219		2219-2220		2220-2221		2221-2222		2222-2223		2223-2224	
-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--	-----------	--

<210> 585

<212> DNA

<400> 585

<210> 586

<211> 500

<212> DNA

<400> 586

<210> 587

<211> 193

<212> DNA

<213> Ctenocephalides felis

<400> 587

```
actgaagttt gttgngcgta aagatcactg atgtgggana agaagncgac aaaacanagn 60
ggtaaaacttt cgacaaggaa tacattacca acaaaattat aaaagtcag aataaattaa 120
tatgnaaata ttatgataag gattatatac ttttganttc tttttgtaaa taaagattac 180
ggattttaa tct 193
```

<210> 588

<211> 399

<212> DNA

<213> Ctenocephalides felis

<400> 588

```
accattttat atgagagacg gtatcctagc tttgccatat cattgggtcta ttttaggaca 60
gaactggtcc ctatatatgg caatatccac caacattttt atgcaatato taacaaacaa 120
tatactgtat ttttaccatt tattttacca cgagcaaagt tctctogaat ctgatctcct 180
cgactagcga caactaagtt attagtctta actgaataat aacacgttgc ctgatatgat 240
aatattataa atatatacta gctcccagtt aagcgcttat atctgtcgct ttacaacact 300
ttacatatta tgcaaatacag gttcttcttt ctattgaagt tccagttgcc tgaataaagt 360
gcatccctat aatttcgatt gtctcaaaga tctcactgt 399
```

<210> 589

<211> 238

<212> DNA

<213> Ctenocephalides felis

<400> 589

```
aaacaattcc gagattaacg gggctcgacc cggcgaaatn ggtgcttgcg tatcgagcgc 60
aataaaaaaca ttatataaca caaacaatgc agattattcg gttaacgaaa ttataagtga 120
aaaaaagtca ttaggaaaca caaaaattaa acataaaaatc aaacctagca ttagcaaaaa 180
tgccgaaaaa aatattaaaa aaaatactga cattattcca gaaatgttaa aatctgggt 238
```

<210> 590

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 590

```
actcggtccg anacgctana tgccaagagc gaacgaaatt tcttactatg agcggttgca 60
angctagttg natattttatt ataaaaactat aataaaatta taantcnatc ctttaaaaaat 120
atthttngata cgtaaattccg tatatattac ataaatatat ggtatnttat naagacgan 180
atgtttttacg tnancatttn tgggtaacaa actattantt ttaatactat nttaccattt 240
atatatttng ctatcttagt atttattgag tttngatant tcatatnant ntaatttnca 300
aatacaatgt gaaaaataag ctattacatt cttacangca attgaacgta gottatanna 360
```

tcatatcatn atttatgtaa cnnactatta tgttgtnact aatttancac catanataat 420
 annnnnnngna taatgttnaa nacantcgaa ttgtcnangc nanantctag attgnatata 480
 agtatgattn tntgtgatat 500

<210> 591

<211> 427

<212> DNA

<213> Ctenocephalides felis

<400> 591

acatatcggc ggtttcttgc attctatcat aanttgacgc canttcnnac taattagcta 60
 ccaatnaagn ttaatngnaa tatnctcgtc catcgaacgc tntttaataa tctngaagac 120
 aacgcgtgca cggnncttat taaatcgtct ataacgataa tnnatTTTTA tatatacatn 180
 catatatgta tactgtatat atncatatac agnaaaaccc cgatnagacg atctttnaan 240
 aggctggacn aaaaacgcat cttacggcag aaaatantat taaaattaca ttaattgnta 300
 aaacaatgaa aatattttca tttgcnagtt ttagttttatc anccattcac taaantagct 360
 gtaagnggaa ttctgcctta aggcacnatg ncttaattgc cttaaggcaa atngctggaa 420
 cttting 427

<210> 592

<211> 307

<212> DNA

<213> Ctenocephalides felis

<400> 592

antcgggtatt gccanctgnc cnnngggtnn gatngacgnt gnntnctatg tgcgcgggca 60
 ntncnogat catngctaca gaaacggatc gttaaatttt ttgcanacta ttgaagngca 120
 tgttttgntt ctgatatnta cnatcanatt acantnneng gatgcgggat anttncangn 180
 nncgatnoga ngaaanctan ntgtcgaatg gcgntatgaa taaggcataa cancattcta 240
 ggtattagat aattaccaat aacttatccg ctgactaat atctaataa aatatatnng 300
 ttttcgt 307

<210> 593

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 593

ccanagnata ttatattggt aattncctat ggtacaaaca naanttaact aggtataaga 60
 taaattntca tttcaagaca tctgttactt taagtgtatt agcaagaatc tcaaattggt 120
 agctgttaat ttaaaaaaat ataaaagcgg cctttactaa aaatgtaaat gtgaaaaat 180
 tttcaaaaaat atnttttgaa tacattatgc ttaaaatcgg attaggattt tcagaaaaat 240
 attaactgac aactggaaac ttannntntt tatnntttca ntatntatag cagnatannt 300
 annnatntn cattctnnnc naatnntgnt tntntcntn tnnnnntnn attttntnc 360
 canctntnn gtcccnnaa ttntgcnnn ntntntntn tttntnnnc acntnnnnnt 420

ncnnntntnt tcntttnnnc nnanttctnn ncatnttcct ttccnctnnc ntntnctnch 480
tacnaactnt nttnttnnna 500

<210> 594

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 594

gnnnngnntn ntntnttttgg aancacngaa gctcttngtn agctccaatt cggtttgngg 60
aaaaccctcc aggtacggaa cccatgggaa tgtaaacaaa atttatactt attgttaaaa 120
tctctctaaa atatctgata atttgatgtg catatgtcta atgatcattt ttgaccgcca 180
aatggcacat ttttttactt tttcctccat atctccaaag tcgttggacc tttccaaaat 240
tttgaacagt tcttcattta gtcaatacaa ataaaatgtt ttttaaatta ttcaaatacg 300
acgtccgtt ctcttaaaaa ctgagttacc gttttcggca ctttttgccc cgtatcttcg 360
gaacggctag acctaccttt gccaaaaact aatcagcacg tcttcttata aatatgaatc 420
gaatgttttt taaattattc aaatcggttg attcgtgttc ccgaaatcgt cgacgaaaat 480
ttgnatccgn acatacatatc 500

<210> 595

<211> 204

<212> DNA

<213> *Ctenocephalides felis*

<400> 595

accatgtaaa tcgcataatt agaccaaatc acgtatccaa caaatctttc aaaataacta 60
aaaatttcga atcggataat agggttcaga taatatcgca tcgttaaata tcgcgccgta 120
aatctaccaa cggtttgata tattcaagcg atcgtgtggg cggcatgtct ggtgggatat 180
ttactttcac gtctcgcgac gggt 204

<210> 596

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 596

actttgtttt tcttttaatt gatgcttgct catagaataa tgtaaattcc gggcaatctg 60
tagnggaaac caggaaatat aatccagcta aaacttgacc tttggtatca cgtgccagta 120
atgaacggaa gttgtatact aaattacgcc ttactgtcac atccactgca gtataataag 180
gtttatgcac atatactaga gataccacta gattttagt tgttcctcct tctttaatag 240
ttctgtgttg tcgttcacgc cattcaacat aatgagaaga ttgagtgtca taagcatagc 300
aatattcgcg tttgcttcca cctggccctt catcacattg tgtaaaccac cccgtatgtg 360
gatatttttc atcagccatt actgtcacta ctcttgcgac gtgatatact ggatcacaaa 420
ggactacacc ttttcttcca tttatgcaaa tacgaatagc accataacgt gttctttttc 480
taagcgccgc tggagccctg 500

<210> 597
 <211> 428
 <212> DNA
 <213> Ctenocephalides felis

<400> 597
 actgacttct tgtatttcac caccgtatac ttcttcoctgc aaagctctaa aggtctcact 60
 cttggcgagg tgcgtaaacaa cagtcgggtt atatggtagg cttgttgat gacgaatcgc 120
 ttccggcgacg ttggcatcgg aatagaggcc aattggagaa ttgaattgtt tatgcacaac 180
 cttgtttgct atgctatcac cagccactct gtgtaatact gaatcggcaa ccttttgctt 240
 cattaaaact tcatgattta atgttgactg aacgggagcc ctcatggccg gattcgggtg 300
 gtggcgcgaga tagcaatcat tagcatttga gtcgcgcttc acctttgcac ctggtagcac 360
 caacgggggtc gttctgtatg gccaaagtgt tgcagaatca tccattttat ttccgtgatc 420
 cgtggtgt 428

<210> 598
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 598
 cgtttttcac gaaattatgc aacttgtatt aaatcgcttg ttaatatcac tgtgcatgtc 60
 cgccaaaaaa atatcataac tcatcaagtt gtgaaactaa agattttcca ttattacata 120
 ttacatacta tacatcataa tactgaacga agattattaa tcgaacgctt tatggagtct 180
 gatataatttc tgtaatctag acgtataaga atctttccgc ttatcttgac ttatttattg 240
 tttgttaatg attatacgca gcacaattga tattttatca cactttccaa taacaaattt 300
 ttatggttta tgtgattttg tataaaatgc tgctaattat aaaattattc gactgttatt 360
 acgtgttttg ttggactaaa ttctaagaaa attattaata tttattttaga tatatttggt 420
 tcgaattttt atttctaata taatgttgca ttctatttgn tacatttatt taaataaata 480
 atctgctttg naaaaaaaaa 500

<210> 599
 <211> 194
 <212> DNA
 <213> Ctenocephalides felis

<400> 599
 cctgttggtt agacatcang taaacactaa atttntnaca accgantttt agncantaat 60
 cattaatgtg cacnnaaaac taatatttag atgggaagga ttggatttta tcttaaaaaac 120
 taaagaaatg tgtcaaaaacg tgcgcgttcc tctcggcga acacgctagc cgaacacagt 180
 ctcgtcggaa ctgg 194

<210> 600

<211> 383
 <212> DNA
 <213> Ctenocephalides felis

<400> 600
 actcaaaaaa taaataataa taaaatctgt aataagcttt taactgtatc tcattcggaa 60
 taatacagaa aaagaaatgt tctttgctga ttattccact tttttcacia ttgtagatta 120
 tcatatttta tctataatatt atataatttt tttaatacat ttagttttat atagttttaca 180
 ttatatttct ttccataatt tttaatatct catgtaatat atgtaggaat attttgtaca 240
 aggtgttaat attcaaagtt gcataaggct ttttgagctt taaaagtaaa agcttcaaaa 300
 agtttggaac ttttcgtatt ttgatgtgaa aatcctaaat atcttttttt ttgggtttatt 360
 gttcatagca aattatacac agt 383

<210> 601
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 601
 actatactat ctaatacata ttaatacaac agaactgatg cttagcatta cttttttttt 60
 cataatagat ctaaaatgca cttcataaaa caacaacaac attaacgtta attttaacgc 120
 gttaaaaaaa tcacttttta atatcagaag ttatagctaa aataatagca tttattatta 180
 ttaaaatatt aactaaattc gtcccaaaaat attaaacaaa cacaaaaaat cacaatgtag 240
 taaacaatcc aattagatta gaatcaaatt agtatgaaac caattcgagt aaaatccata 300
 catagatggt atatagagcc attaagagta gaacataata attgtagtta aaatgcatag 360
 attgcctcat caaaaatcaa cattaaatgt tgtattttcg atgatttgaa atcaattgca 420
 ccacaaatta tctcaacaac aattcactta tacttatatt tatattgaca tatattcagg 480
 tactacatct tatcatttac 500

<210> 602
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 602
 cataataaat gttacatata ttacaataaa atattatata tgtattttgt aaaactcatc 60
 tttttcatcc aatttcttag cagtgcattt aactctgtaa ttttgacgta tatactcgcc 120
 atggattoga ttcaaaagtt acaaaaactgt acccaacttg gagcccctaa atttaaccacc 180
 catcaacata tcgagagaat cgaatggacc ttatctaaaa gtaaccctta ggaatacaac 240
 ggtttatgga gcttccaact tcattgtcac ggatttataa tccgatctca atactggata 300
 tttccaattt aatttgactc ttccaaaact ggacgttgaa ggtgatttca aaatcaaatt 360
 aaacctgttg ctcataaact atagcgggtgc aggtcgaatt tacatcaaca tgactgatta 420
 ccacgccagg atgcaaatac atggctacaa gaaagttgtc gacggaatcg aatccttcaa 480
 gtcaaaccac tcgacatgaa 500

<210> 603
 <211> 220
 <212> DNA
 <213> Ctenocephalides felis

<400> 603
 acgccaatt aaaatgacga gtaaataaat atcttgctt attataattg cagtttttcc 60
 agacattgat tcttgaatta cactttcaac aataaggaca tccgcatcat ctctggcttg 120
 tttagtagtt atatttgcag cctttaaatt ttccattagc atgttaatga gcctaatttt 180
 attattttga ttcgataaaa ataattcttg ggaaactggt 220

<210> 604
 <211> 465
 <212> DNA
 <213> Ctenocephalides felis

<400> 604
 acgtaacctg ggaggcacac agaagcatct atttcgcggg caagaacgta acggctgttt 60
 cgttgcacac taatacaccg cggttacatt tttgctacgt atctaaattg aataaaaaag 120
 cgtgtaggtg tcttttatgt tacatactta tttgattaaa tttcctgcaa atatagaata 180
 ttaataataa tttcggatca ttagtaattt tattaatat tatcatttac aatatacaaa 240
 atttacatat tacatagtta acattagaaa actaaaattt gatagtccat aaaatgttag 300
 cctataaata taattattta tttattcata atatgtatta tgtttaactc tcttggcaac 360
 ttcagttaaa tcagacttgg caaagttaag ttttgcgta aatatgttca actcacttgc 420
 atctgttaat gtatctaaaa tagaaccaaa catcttagaa cattg 465

<210> 605
 <211> 231
 <212> DNA
 <213> Ctenocephalides felis

<400> 605
 accaccccc aaaacaccat taatctcaag gaacgtttct ctagcggatt tgcctttaac 60
 gaaggaaaac tttaaaatag cgcgaatttc ggcgtaagt aactccatgt ttacacgtct 120
 ataactgtta aacgcaatat ccaaactaat catgcatagc atcgttttgt aggttatgtc 180
 aagacctttc aaattatgta tagtattgcc agatacgagc tctgtagcgc t 231

<210> 606
 <211> 186
 <212> DNA
 <213> Ctenocephalides felis

<400> 606
 acgtttggta atgtcacaga cgctctctcg cgggcattgt atatggtgtg attcattgcc 60
 atagttccgc gcgtcgaaat attcaaaatg cattgcttcc gttttaacga cggcattcga 120

gtttctctct ttcctgcaca agcgatatgc tatttgcata cgggcacata taaatccgcg 180
 ttcgcg 186

<210> 607
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 607
 actnctact atattgtatc tttttaaatg actgtaactc gaaaactatt tgagatatcg 60
 atttgaaatt ttaatatgtt attttcaaag gtgtaattta ccgaaatata aaaaaaaca 120
 aaatcgattt tttcaaaatt tcacactagt tgtgccctt aatccatctt ctattgctaa 180
 agtgtaggac gtctactatt ctacacaaat cgcacaaata aaaaattccg acagaaataa 240
 aatcccatctt ctccaacatt ttaacttggc accatcaccg tccctctaaa tttcatatga 300
 tatattgcaa attattccg caaacgcgtt gcgcaacaat gggcccttgc tcaccgtaaa 360
 cataaacagt tcttatcatt gacgtgcctt cgttctgtat tgtatacata tgtatgtata 420
 gatacaccaa aaataggtat acatgatgaa atattctgca acgaatatat cgggaaatgc 480
 atgtattatg cattaatcaa 500

<210> 608
 <211> 269
 <212> DNA
 <213> Ctenocephalides felis

<400> 608
 acgaatgtng cacaatcgat gtgatata acaacgaccc aagcgacgtt tttcaaaacc 60
 cgaatcaatt tcgcacaatt ccacaacgaa taaaataaac gtgactaaca aacgatatag 120
 tggaaagata gtgccagcaa attcgaaggt tctgattctg attctcttct gcaattagtt 180
 tttaaaatca aaacatttta ttatatttta tgaagttcaa ttaattgaag gttttattga 240
 aaatttactg aatttatttc cctcagcgt 269

<210> 609
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 609
 acttattaac aaaattcaat caataaaaact tattggtatt ttaacttact ttttaagtatc 60
 ttcagtatat ttttcagaca gcctcagaat gcttcagaca tctttggaat atttactaaa 120
 tgctcgatat ttaatgagac atgccgctt ttcatttgat ggccaccaat caaaatcact 180
 tttacagtct taaaatgaca gtgatgatgt cagatgaaag catttgaaga aatataaaaa 240
 cattgtaaac tgtgaaagca gacaaaaaaa taacccaaac aactaggccg attgttatac 300
 aaatctaatac aacatacctt aaagcaatat gacactcaaa cctagttatt gtgttaataa 360
 atgagtttcc tcagattatt aacttcaacc actgaacact agatttgtca gggcctccga 420
 ctgatttcaa ttgcaaaatt atttccaaag cagcttcatt ttgctttcca atacgaataa 480

aacattggct gagcctgtaa

500

<210> 610

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 610

acgttatcta ctcaacctga aactttgcct ttatcgcaac tgggaccagt aattagccct 60
gttgcaacca cattgggtcc tgatgcagaa ttgcatactt ttcgagaagc acttgccatg 120
agttctttga gtggacgacg tgctcgacat ggtcctgagt tatatgcctt tgtaactggt 180
gaaatagcaa gacactgtaa aagaccagcc agtcctggtg atgtcaatat ggagtctccc 240
acacatcata gtaagcgggt gcggnntatg taaactggta agttaacttt aacactaaaag 300
naatttattt atgntaattt acattttacta ttggtcatgg actgaagaat attctaagat 360
tgccagtttg naatccaagt tttacctgga tattatattt tactaaattc gaggaatgaa 420
ctatgaatga tttcataggt ggattaangg aagtaattct ttaattttat gaccatacat 480
tggaatggac caaaagncct 500

<210> 611

<211> 140

<212> DNA

<213> Ctenocephalides felis

<400> 611

acaacatgcc acgggttcta ttcaataaac acattttaca catgatttgc cacttacggt 60
tattatctaa gcccaaatca taccctaga ccatcgagcc acgggttcta tccactgcgt 120
gtttgtgttg catccaatgt 140

<210> 612

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 612

actcgtgata tcgtgctaaa aaaatatata aaagtgttgc catatgtgga acttgaattc 60
ggtcgcggca ttcacgtag acacgaacag aatgaggtgt gaatctaaac tacattacac 120
ccatagatca gggcttctta aactatgggt tgcgacocca aatgggggtca tgtaaaaaaa 180
ttttggggtc gcaaaagatt ttaatgccat tttattcatt ttattacatc acgccttgat 240
tttttatcaa caaattctta aacatatata ttttcatatt atatgtatat gtatattggt 300
accaaataaa taaatcattt aaattttttt ttattttattt aaaatcatta aaataaatta 360
aaacatgttt ttatatgtgt agggtcgtca acaaactcgc aatcataaat gtgatcgtga 420
aggacagaag ttaagaacc ctgccataga taaataagca caaatgtttc cttatctatg 480
cataaatgat aaaatcattg 500

<210> 613
<211> 146
<212> DNA
<213> Ctenocephalides felis

<400> 613
ggtcaattga atctgagctc cagtgccttag caaagatcag tgttacgtat aaggtaattt 60
tacataatgg catctttgaa gttaaatata gtaaccagga gcttaagctc atctgcagtc 120
gcgtctcaaa tgggttaaacc acccgt 146

<210> 614
<211> 162
<212> DNA
<213> Ctenocephalides felis

<400> 614
cttaaaaatt gatgaattta ttctatatatt tatgatttgt atattttatt aatgtttcaa 60
agtattatac gacatcttat gcaatcttgt ataaaatcat taatatcatc tagttgtata 120
ttatttgatt gttgactagg ttgtaaaatg ttttggttcg gt 162

<210> 615
<211> 274
<212> DNA
<213> Ctenocephalides felis

<400> 615
acataaaacta cgagcctaca agtcttgtat ttgcgaacga ccttttcgaa caattaatta 60
tttatttttta taattaataa gatagatttt atgaataaaa taccatgggtg tttgtttcat 120
ttaaaattgc attgtgaaca tttaggcttt aataatgatt acgcttgaat tctgtattgg 180
gaaatttttg tgactcccat attgaataat ttagaaattt ttgataagtt cacaacaatt 240
tttgataagt tttattggaa tgataattta tgggt 274

<210> 616
<211> 266
<212> DNA
<213> Ctenocephalides felis

<400> 616
acatcttcga tggtaaatca ttattagcat tttggaaatt ttaaacaacat tatgcagaaa 60
atgtatagtt ctaagcattt ttttaagttt aattgtttta gtctaagttg aaagattaga 120
tttagacaac tccaatcatt tgtaaaaaaa cactgcttgt tttgaaaaac aaaatttatc 180
taaaaattga cattataaaa gattcctaaa aattaaagggt atattgccca taaaacaatc 240
ggacgttatt tccatatcat aaaagt 266

<210> 617
 <211> 173
 <212> DNA
 <213> Ctenocephalides felis

<400> 617
 acgcggaacc gagaacatcg actcatttta tcttttggtta aaattatcac aaagccctct 60
 caagagtaga catacgtgcg aacattttatt aacacctaca caggtggaaa tgtaacagag 120
 gcattgtaat tttggaactg tttattattt ttaactaaat acgctaaatt ggt 173

<210> 618
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 618
 actatttgtc gttgctgaca tttttcctgt gacaagaatc ttttaaattg aatgatcgac 60
 aatagcaagt taattaaatg cgtgtgtgct ttcgacgttt agttaaatag tttacggcct 120
 cattctcgat attaattgaa ccaaatacgt tccagagaaa ccacgggtgga gcagttcaaa 180
 tattcattga agtttggaat ttaaattcaa ccaattcagg ttagatagac tagatagcac 240
 tggaaacacc aaaccgcaat tcagcagaag ttttatcatt attttggtat tttttataaa 300
 ttttaaaaac tttttgaaat gactcagatc tatagacgat atgaaatcct gtaatttata 360
 ttttaaaaatt acccggaccc cgggttaaat agaaaagcct tgggtcaaac ttgaccaata 420
 atatgaggaa tggtccttga tactctatgc attaatgtac taaaattcct tcgtacttct 480
 catgaccctt tattatcact 500

<210> 619
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 619
 gtntngaagc ccttanntna ngnttcttng tatttcccga ngncntcca ggtacttgca 60
 ctaaattgtag atcgtaaaagt tttttatttg naaacaggta tgtccataaa tattgttcgn 120
 atactgcatn nagaatatta ttaattatta aaatcacaaa atatattaca gaaaattata 180
 aaacttttat aaaaatacat atgactgggt taaattagta tgtgattcat cacacacttg 240
 attgtaaaat gttgataaaa aaatatgata agagattcaa tttaaaatgt aatagtaatc 300
 tgtaacagtt acaacaatat ttatatacag tataacaata acaattaaaa ttgatactcg 360
 tatctgcaca aaaagtttca attgttgaag aaataatcag catccaatct atgattaatt 420
 tttggttatt ttccaatatg tatggacgga aaaataatcc ttgaaatatc ttttggcatt 480
 cagttcatag ctcttcaact 500

<210> 620
 <211> 299
 <212> DNA

<213> Ctenocephalides felis

<400> 620

acatctatat ataagttctt atctatatta aantaacgaa gagaaaagtg aaagaaatat 60
tttntccttt ctttcttctt ttattccact aacgtggacc gtgtcgtatc tgtaattatt 120
tctaacttta cgtcaatct tataattaag gtctgataat ttgccaacta ttttataagg 180
ccgtgcaat ggatgttggt gttagtctga ttggccttat ctacgaactt cgggtgtccc 240
taacacccac tggcctacta taaaatttgg catttttgtg gagctctcac gatattttg 299

<210> 621

<211> 491

<212> DNA

<213> Ctenocephalides felis

<400> 621

gaaatgtcat tgcaaatctt gatgataaaa aggcaggtag taacgataac atttttgggt 60
ttttatttta ttttgagtta caactacctt tatacctgat ttgtagagca gaaaaaatga 120
gcaaaaagtt caatgtatta ttgatcacat aaagcaataa tacaaatttt tccaattaaa 180
tgcaacgcat tagtaaattc attgaaatgc aattcctaatt gcattgcatg taaatagaca 240
actcactgct acaaacagtg cattaaattc tgttttaggc attagttttt gaaatccatt 300
ttcatttttag atcatttttg ctatgtgcag tattcggtcc ttaggatcta aggtaaaaat 360
ttaatataga tataaagtca ctgtaagaat gtcatttctg aacttttact agaccatgta 420
gaatataacg agttcatgct tttgaagatg tgaaatctta attatgttta aattattttc 480
ttctttttct c 491

<210> 622

<211> 121

<212> DNA

<213> Ctenocephalides felis

<400> 622

acatatataa gcaatatatt aaaagtagtc tatttaacaa actttaaaat attataatat 60
tgtaaaaacta aaaacatata taagaagaat tactaaagca aaattgtaat tagtaactag 120
t 121

<210> 623

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 623

acgctatata aatgatagtt ttcggcatac ttacaaatca ctcataaatt cttatgaagt 60
ctggacaaga aaattataaa attgaataaa agctctatat gcaaacaaat ggaaagatga 120
ataacgaaac acttagcgac aatgccagtt ggctcccaga ctttgatgaa ttagtaatta 180
tgaataaggc agttaggggc ttgctgtaac attttttttt aattcatata tcttcagatc 240

cagtgtattat atttctacaa aatagaagt gatagtcgct gcaactatit ctctaccaa 300
tcaagtaaag ataatttcac aacttttgtt aattatttca caataaatca gtttctagaa 360
aaagttcaga gttacatctt acctcgtgtt tggggcatgt tgtaatagct accggagcaa 420
gtagtagatc ggcaatnatg ctctgataaa tcattctcta ttattntata aaattaactt 480
gttctaagta attctgttat 500

<210> 624
<211> 409
<212> DNA
<213> Ctenocephalides felis

<400> 624
acaaattttc taaaaatatt agttatgttt tataaatagt ttaaaaatta catattattg 60
aacaagaaac aaactgtagt aaattaaaaa caagatccaa atttccaaag caatttgta 120
atcaataact gaaaaacgac tcgtcgatta ttgacaaaat ttaatcagca agattctcaa 180
atggaaaacg tttgtaattg tttttgaatt tttaaaatca attcactaat taaaaatttg 240
agactttttt gaaaattcta aaggcaaaac taagcagcac gagtgttat cgaatttacg 300
aattttgacg atttttcaaa tgggattgtg catttttgag aaaaggccac taaagatgaa 360
attttgctca cgtaaaaaag cgccgctcat ttttgcaatc tttgatagt 409

<210> 625
<211> 600
<212> DNA
<213> Ctenocephalides felis

<400> 625
nccatnaaat tngtaccaaa antaantttg gatggggctn anccgncccn ttanttggn 60
caaaagtaan ctngggcttt atcntantaa atanggcca gtttatttta aaccttaatt 120
ctaactctta ttggttattt taaaaagccn tgagaccntt aagtaatatt gctgcgtgat 180
tcccttaatt gngcattcat caacattaat tttcggctaa gttttgngnt gngntcttgn 240
aagtaactaa taatatcggc ttgnntttca agaagttctg ctatatttct tccctgctgn 300
ggaaaaccaa cagcatcgct cctctgnctt tctgacatgg nggccatttg ncttatccat 360
tcacttttca aaacatcggg tggnaaatgn ttcataatca aatcaaaggc cttattaata 420
tatccccatt aacttccatt aaaactgntg gttcacaata ccaatatggt acatatccac 480
tggagaaaga atacttgctt cacaatggtt tggnaaatca tntcataaaa gtggttgctt 540
aaaggttgca taccattat tcagcattcc atanggatct cntnttacc gatattctatg 600

<210> 626
<211> 480
<212> DNA
<213> Ctenocephalides felis

<400> 626
caaatttatt gtagttgctg aatgatgaca cgcatctggt gtcgaaacgt ataaataaaa 60
gtttttaata ctttatacct tttttatttc gacgaatggg ctgctagtca ctttgaaata 120

tgtatatatg ttgcacattc ttctcttatt acctttgcta gcctgcatgc atttatttat 180
 accccttacc ccgaagggtc ttggatcaaa taccaaaatc ctggtcaatt ccttacagca 240
 gagtaaaaaac caatgtcact actacacttc aatcttctga ttgaaatccc attgctctaa 300
 ttactaatcc aaaccaaaact ctatctatta tgtgtttttg aaaatcaata cgcctaaaaac 360
 taccgtaaaa ctagactgct aataactgga aacgaatggc acactcactt tatacgtcta 420
 atctaaaata tttacttcgt gtaatataat atgggtaatg catgggagag gaaaggccgt 480

<210> 627

<211> 600

<212> DNA

<213> Ctenocephalides felis

<400> 627

acaaatatat tctttaatac ttactgtata gtgcattata gaacattatg atccgctaatt 60
 tatgttgatt taattaagtg ataacgtaaa tagtcaattg acgatttatt acttttgact 120
 taagtatatg gctaaacaag ttagaacaat ttaaattgacc gacaaaacttc atatttgtag 180
 ttgatcattt caggagatca ttttaaattt ttttggttta agtttcacaaa tagtaattatt 240
 ttgtttgtga ccctgggcaa tgcgcgaata taataatatg attttattta cataatgacc 300
 gtattaattg aaataaattg acgtcgaaaa tgtaatagtt ttaattattt atgatcaaac 360
 aactatcaaa acctaacatt attcatgcat tcaagtatta gtgaatgtgc caatttaaca 420
 tgttccggaa aaaattgatt taagtttgga gcaatataaa ataaaaacga aacacaacga 480
 tttttcatgc gaataggcta ctgataatat gttttattgc ttgccatttg gttaatttta 540
 tcagaaaccg ttgcgataga tttaatcggg tttcgaaagc cagttaatnc agtgacgcat 600

<210> 628

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 628

accattaact tattttttaga aaaggttcag gtgtttttac atattgtctt tctctttttt 60
 agatgacttt tatccatttt taatttgga tgtgtgttat tttcgatatg tagttcacat 120
 agaacacaaa aatattttaa gtttgatct cctaaatatg ctggtgataa ggaacgtaaa 180
 gctaaaactgg gatcacactc aaagtgaagc catcttaaac acattccaca ttgttgccaa 240
 gaactgctgg atggtattaa gtccccattg caattgcttt tgcaattaat aaacgcgtct 300
 tgggaatttc ttagacatag tgaataactg taataataaa taaacaactt tatttgtaat 360
 acaaacaaac ttgttaattc tgataattca aaattttgtg aaaagatatc tttatcagaa 420
 ttctgataca aataagcaca tatatctaaa ttattatatt tacttacaga actccggctt 480
 ctctacaaaa ttctaattag 500

<210> 629

<211> 111

<212> DNA

<213> Ctenocephalides felis

<400> 629
 accctactaa gaatgtgaca gaatttttaa gtcgggacgt ttaatagttt tcgagatatg 60
 cgtggctggtt tggctgctgg ctctacgacc aatactaata tttaaacagg t 111

<210> 630
 <211> 103
 <212> DNA
 <213> Ctenocephalides felis

<400> 630
 acacatcaaa ttgatttcaa atttaatgat aattatattt atttcatcat tctaagaata 60
 aagacaagcc catgcatcac attattaaac aggtgctttt tgt 103

<210> 631
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 631
 actcacatct atctaaacat acatatatga tttgcagaaa ataacatttt caagtcatat 60
 atgacttggn tttgntcant accnttntaa ntttggnaat ggnocctanng gnnnannnca 120
 nggcttattt ataatgaatg taaatgcnc aacatgtgaa taatattaat aggattagta 180
 tgcacgaaaa aattaatanc aataaaaaag aaagttttgg atttttagatt gagaattaaa 240
 aattaatata ttagatgtaa tgattaaagt gcaaatgttt agctatattt taattgttaa 300
 cagtggaaatg tttattttgt attgaaatct gttattgcta atgtgataaa cattttttct 360
 gtgttatgca catcaatttt tggattact gtgttttaac tgtaaattat aatattgcaa 420
 aaatacatta gtatattttt tcatgaagtt actaaaaata attttatcat tttcaaaatt 480
 attgtgcgca tgtattttaag 500

<210> 632
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 632
 actaaatggt aattgtgcga gaatggtgga tgaatttata aagaaacata tgggattcat 60
 atngaattaa taaatgtaat gcaatgaaaa cattcgtatt aacaaattca ataagaaaca 120
 acacgaactt aatacttgta acatttgta atgcgaatgg ttcttgcaaa aaagccaata 180
 caaaaaatgg caaatattat atatgtatcc ttgaattatt taattttttt caaacaattt 240
 tccaaaattc cnaaaagaga gaatgtataa ttcagggcag tagcttaatg ataaaacgat 300
 cgccggaagc atttttagctt actatgacat gactattatg aaaataaaat tgatataaaa 360
 tgtgaaacat ttgaactata aatattatat ttaataataa atttgntatt gntatatacna 420
 caaaannaaa nanntngctg tnanaaaaa aaaggttgaa cttggggcgg anaccgnta 480
 ggccgaattt tgganatttc 500

<210> 633
 <211> 392
 <212> DNA
 <213> Ctenocephalides felis

<400> 633
 acaatgtgat tcacggaagc caatttttct tccaatcaca caagatgacc ttgaccttgt 60
 gcgtttgtgg tcacaattta gaacaaaaca catccaactc ttagcaaaat tacataaaca 120
 gtaaaatact ttaaataaat aattagccgt caaaactccc accaaatttt atacgtctgt 180
 ttttccgtgt ggaggatact ggcaatgaga actggtttca ctaaactcgg cgctcttcaa 240
 acatttcgaa aatcttaggg agaacaaaat tacaataat tagtcatatt acttacatta 300
 tttttattta catcgtttag tcatctactt tttttaatta tttatagtta gaattacaaa 360
 ttgatttcag acttaagctt ttcaaactgt gt 392

<210> 634
 <211> 413
 <212> DNA
 <213> Ctenocephalides felis

<400> 634
 actacattgg aaacagccag tgatataagc aataagcctc caccgccatt aaagctgcta 60
 atgaatccgt atggttaaagt tttagacata aatactgtgt ataaagaaac tggaaccgaa 120
 ccgctcagtc cggattttaac cttcaatatc gtcaatgctc tgaacgcgag caaaggcaga 180
 ggtgctgaat tgttcgctaa gcgcgcgaag aaatctgaga agtggatcgt agatgaaaca 240
 agaactactg aaaaaataat caacaaagaa aattctgttc agcagtattg gaaaccatca 300
 caaagtccgt tatgccagac taatcgattg gggtcttggg aaaaaccaa actgcaaagt 360
 aataacaaag agtgccttta tacttctccg attcaatact accaatcgtg cgt 413

<210> 635
 <211> 649
 <212> DNA
 <213> Ctenocephalides felis

<400> 635
 acatgagnaa aaagtgtggt tatatatatt ttttatattt aataaatgat atattcaaatt 60
 gcatnttttt ttaattctct atcatattca aatgcgctta tgatacaagt gcaaaaatta 120
 catgcagttt tcataatcca aaagatttta taatcgtgta aatgtattta tagagattgc 180
 actactaggt gggcgcaata ataatgctct tactaaataa ttttaatacat atattagagg 240
 caccactcta gccttatgct aattgatttg atctatatc agaaatgata aaaattaatt 300
 cactgtagca gtattattca gttgttttaa ttagaatttt aatctaaatt gcaaaatttg 360
 tatatgaaat aaaagaatag gtaatacact agaatacaat gaaataaatg caatgaatta 420
 gatcacaaat cattgacttg nttttttata tttaaattcaa aagtttttat aaaacatttc 480
 attgaattaa atcaataaag aaagatagaa atccaaatat tacaagatac attattgata 540
 ttttataata atagtatgaa tcataactc atgtggcaca gccattatta acaattaaat 600
 taacaatatg aaatcctaa tattaaaact atatttaaga aagcacatt 649

<210> 636
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 636
 actcacatct atctaaacat acatatatga tttgcagaaa ataacatttt caagtcatat 60
 atgacttgan tttgctcatt accatataat tttgagattg gcctcatgtg atgagacgag 120
 gcttatttat aatgaatgta aatgcacaaa catgtgaata atattaatag gattagtatg 180
 cacgaaaaaa ttaataacaa taaaaaagaa agttttggat tttagattga gaattaaaaa 240
 ttaatatatt agatgtaatg attaaagtgc aaatgttttag ctatatttta attgntaaca 300
 gtggaatgtt tatttttgat tgaaatctgn tattgctaata gtgataaaca ttttttctgt 360
 gttatgcaca tcaatttttg gtattactgn gttttaactg naaattataa tattgcaaaa 420
 atcattagta tattttttca tgaagttcct aaaataattt atcatttcaa aatatggggc 480
 catgtttaag ggaaatgaa 500

<210> 637
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 637
 actgaattat atcttaatta aattttggta tatttcgtag aaatataatc gaggatcttt 60
 tcttcaagtn ccaaatgata ctgttacgac aagcccctag tcgtcctatt taatttcaat 120
 ttttactcta attgtcgttt acaattgatt ttgagctgat tttccgtggc tttagacacg 180
 tttttccatg gtttggaac cttgttcgat tttttagttc ttttatattg aatcgtatga 240
 tcgttggtcc ttttaattttc tttttgaaac agtccttggtg tggtttgatt cactatttta 300
 ctttttaggct gcaactcatag tcagtaatta atatacacga ttgctgattt catataaaaag 360
 taatgtaatg taaaactaga aatttcataa ataatacaata ctaaaaacta ggaacgaaat 420
 taaagtctgn cacttncitt tgcataatag ctttctaaaa ntagaaactc aagaagttta 480
 actatgttgc aaagtttcag 500

<210> 638
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 638
 acanagctgn aattaatatt atattngtcg gagggcattt tcaatcnata tcctatagtc 60
 gaagtgtcga tgtgangagt ccgcatttat tattcagact tctccatttc ccgctttaac 120
 gtttcgatat aaaatcgggt atgatacctn ctaaattcct tacggcctta ttttagcttt 180
 ttattgttcc gtgnnttgta tactgaaata atgatgaatg cgogaatatt taatttacag 240
 tcttcaaagg atatctaaat gttgtcgttt tgnocntcgt ctgcctgtcc gtctattggg 300
 cttttgtgaa ttaacaataa ataaatatgt attataacag tttagactat cgtatggtag 360

caaattatTTt tattcaacta attaaaaaaa caggcattat cgatttataa ttcttgaaaa 420
tctaaggtgt gataaanaaa actggtggtg tatggagagg agaccctatt ttntcaagta 480
aaaccgggac gataatttta 500

<210> 639
<211> 112
<212> DNA
<213> Ctenocephalides felis

<400> 639
aattttcata attataatac tataatttat ctttttgatc gottttatatg tgcaaataga 60
gcangccaag cgcgcatctt ngcagaattg cgaggaaggt attcggggcc ga 112

<210> 640
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 640
acgaacaaag ttttttctgta tcttttactg nttagctagt agagagcaat ctgnngtgatt 60
gatcacttat tgaaatgcaa attacattta gattgcagca attattgaca atattttctat 120
attttccataa agaaaccata taaattataa tacattgnta aaatttcgta tggntctcca 180
gtcattcaat tctaataaca atcaccatTTt aggctaaaat cttgcatgtt ttctgccctc 240
gaacaaacgg ntattcacgg ncagcgtggt tagatatagc agcagagccg catattcagt 300
tcagcaagcn ttcaagaata aaagaataaa ataattttta ttaaatatca actaatatat 360
aatcttttct cggaatgaa tataaganat tattatttta ttctatacan tggattaaaa 420
aaaaaaaaac ataaatttat ttttattatt aatgctaaat tatttatcnt tcgtttattt 480
taataaanat aattgaanga 500

<210> 641
<211> 322
<212> DNA
<213> Ctenocephalides felis

<400> 641
nnnnnnTTtta gccccgntgt gnttcggcgn cgccccggcgg tcatattaaa acaaccggcg 60
ccgggttttt caactgaaag aaatgttttt ttaattcaat tttttataat taaatacaag 120
tgaataaaaa ttacatttaa gagtattatt attgcttaac aaaagagtat taaaaaagtc 180
tactgatcat aaatcaatag tataggaaaa gattggtaat atattggatg aaggtaaaat 240
acacaagaaa tcaataaaca aaaataaata ttgtgaaagt tatttacgcg tatataaatc 300
atctttttaac aagcatcatc gt 322

<210> 642
<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 642

```
actccgcgaa tctattgtca aacatgcttt taataccttt tatcatttct gaagaatggt 60
gatcccaatt atcattatct aacctttcaa gataagattt gaagcttttg ttgccttctt 120
aaaaaatctt taagttctgc cattttaatt gtttttagaa ctcaagataa ctttaatttaa 180
ttttttgata gggaagcgca aaccgttaca aaattttacg tataacaggc gttatgcaat 240
atcagcggtt atatcagaat tttaatctat aatcaattga ttatttaaca attctaattt 300
aataatatta gaattggagt ctacacatc agtaacataa gttgngngt taataaatta 360
acaaatatat aaaccaataa ttagtaatgn ttataataac taatataata tttcataaca 420
attaataacc taaggattta cgaaattggc ccaaaatctt agagcaagac caatttcaat 480
caataatatg gtcaggttta 500
```

<210> 643

<211> 127

<212> DNA

<213> *Ctenocephalides felis*

<400> 643

```
actaaaattg gttacaagtc gaagtccagt attataaaaa agttttttcc aaggaacata 60
caattcttta atgtatggca aacatattac accagaatga gtttctgagt caggtaaattc 120
gttatgt 127
```

<210> 644

<211> 393

<212> DNA

<213> *Ctenocephalides felis*

<400> 644

```
acaaaaaaat gtcccgggcg ttaaacttaa aaggcattgg tctctgaaac aaaatcttgc 60
ttgaataact aaatttttta atacaagaat taattattcg gaaaaagttt gagattgttt 120
taagcttaaa acacttgtga aaagttttat aaaggaaagt ttcatagttt tggagatatt 180
taattaattg tgcaaaaagg tcctgtgctt caaacttata aggaatagtt ttcttgaaca 240
aaaattagtt tgaataacta atttttttta tataaaattt aattgttggg aattgtggtg 300
tatgcaaacg ttttagattt ttttatgctt aaaacacttg tgaaaagttt tatgaagaaa 360
agtttttatag ttttggaat attcaattaa ttg 393
```

<210> 645

<211> 394

<212> DNA

<213> *Ctenocephalides felis*

<400> 645

```
actttaactc aatgctatct atacagggtta caatattata tattaaccca totgagtatt 60
```

ggaaaaaaat taatactgct tattataatt tgtgataaag cacaaaattc ttaatttgct 120
 actgtattttt tacatatgct taaattataa ttttaattta ttttagcat ttgttggtaa 180
 cttttaattg tattctactg atatagattt ctatgtaagg aggtttaatg gtttttttac 240
 aattcatgtg tggatatttg agaatcaaga aagcttttct ctaatatattt atacctctaa 300
 actgaattga ttaactctat tttttcttaa tttttataac ctctgctcc tccgcgctgg 360
 gtgcgaggta ttgattgctt ggaccgcgcg aagt 394

<210> 646

<211> 435

<212> DNA

<213> Ctenocephalides felis

<400> 646

cgcgggctcc gatncnnaat gcacgaentn tanggcatgc gtgnaagtgc gctattaata 60
 atacagttac aaagattant gnaacntana antngccaan cggaangnnt acgttgtaat 120
 nanagggaac acgttttttc annctttnt ntggantaag atngttaaat tgccgattnt 180
 caacangnat nggnnnagta nnaaacnagg ctcaacggca aatgccntcc acctaaatta 240
 ttttgtgaac ccaanaaaaa ctatccatac ttnattantn tngacggtgt cgggtccatta 300
 aagcatgana nttnnccgca tntntntcgg tttttgacan nangngtgg ntgcaaacnc 360
 ngannnnang acanactnaa tncnagnatg agtgagtng cgtgagttag agcatncnaa 420
 anggatgcgc cgtn 435

<210> 647

<211> 492

<212> DNA

<213> Ctenocephalides felis

<400> 647

tcntacacta caaaaatgat ttttatattt aatgaaaata ctnatttata aaatatctct 60
 tcaataagct atagttataa caggcncnnt taataattat gaattgnntt gaaaatgatt 120
 tacaataaag ctatgtgaaa caagnntgtg tngtatataa catcatcgcg tnggncgggc 180
 ttttccttgt tactatattt ttaaaaattt aataaaatta gctttgtagc aaatgctact 240
 gtntgataat tgaattttca ngaatagtag gagttgtagc aggagtcttg ttagcttcac 300
 gccatgcttc atcaaaattc tgaatagaat tagaacnaga tgatgaaact tttgtcttaa 360
 cgttttcata ggctggccca ttttntntnt ngtgatttga aagantcaga atttctcatc 420
 tgcccatttt ggtgnaaacc cccgtatttc ccttacaaan aagagttttt cggggnagaa 480
 ttantactng gc 492

<210> 648

<211> 417

<212> DNA

<213> Ctenocephalides felis

<400> 648

acgccgttgg cgatttccgt gaaaatgttt gacaatgttt gttccagggt tggcttgaac 60

tcttggaaga atagtcttgc gttgtcgttc acagcctggc taagaattgt tccaaggggt 120
 tgatcgttgt taaagagacc ggataggcgt attttattgt tccccaaaat aattttcatg 180
 togattgggt tgacttggag gcattcgatt ccgcgacaac tttcttgtag ccatgtatgt 240
 gcatcctggc gtggtaatca gctgaaatag taatataaat aaattactat aaatacgcaa 300
 ttactagaaa tagtaatgta ataagttaac acgttcgcgg gtgtgaatgc tatagcattc 360
 atcgtatata acgattaaaa tatgatgatt ttaatactac caatataata tgaatgt 417

<210> 649

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 649

ttctaaaata atattgaata aaaaatagta gatacaatca gtggcttgta taatagggat 60
 agctataagt agtgaaaatg gaagtgccta ttagaaatac ttttacaaaa cgaattgtaa 120
 tgattcagta gcaacatatt aaaaaataaa attgtcaaaa tacttgcttc aaaattatgc 180
 tagtattctt ctcatgaact aacattagct taattttata attaactaaa atttttgaat 240
 atcctcacat tatcgcaaat ccttggtgac tacatcgtct tagcatatta cctagaaagc 300
 atttcacat caactgacaa atttattgga caattgatgc ctaacgtaac taccaatgtt 360
 tacatcaagt aagatgctaa taattaacgt tatctatgtg cacgtaaata atgaaacaat 420
 aaaatttcgt gagtttctta agcgtgcgtc cctcagaggt caaaaagtcg aaaagtcgta 480
 gggtcattgat caacgaacgc 500

<210> 650

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 650

acctactatc acagtttttt tttactaaca gtttagctat aagtaggatg gtgaaaactt 60
 tttaaatttt tacatcttac tagcgatttt gataatactg attcattggt tataaatctt 120
 caaagaaaatt cttagttttc taagtatact caaacgtag tcaatacgt tatatccaaa 180
 ttttacaccc catttggtgcg atttgctgcg cataattata tttacttcgt atattgagca 240
 gttactaaaa ttgtatacta cgttttcctg aatattattg aacatgtgtt gaataaattt 300
 acaccttacc tttattgaaa atatttggtt gtcgatagta atacgtggtc tttttacaac 360
 aattttgatt gctgtcaatg tagttgaacc aacctttggg ttcaaaacaa aacctatcaa 420
 tttgttggtt ggattccttc gtaaaaaatct gctacacata gacattgagc aaaaatcaga 480
 aaaccccttt gtatccgnag 500

<210> 651

<211> 483

<212> DNA

<213> Ctenocephalides felis

<400> 651

acacctatta aggagcaggt ttcaatatta ctccaatga cctattgctt acacattggt 60
atataaacat cactaaatat ataccatcaa aacttctaca agctaaagca gtaaatacatt 120
aattaacatc tagaatatac aaataagttt tcataaaaatt ttccatttct gttctaaata 180
tatattttgt gcatcgcaat gaaaatacta agacgtatat attaataatta aaatatgtaa 240
taacttacaa ctgtcataaa gatagtgagt tataaatgaa aatatctcag atggtataga 300
taaatttcaa agtttttaaat taaaaacttt ttcgaaggta acgcgaagtg caaacgaaag 360
tttcaccata aatagtttta gttcatttta ccataactcg cgataatact aaatcgatga 420
aaggctgaat tattaaggtt atcagaacaa tgaactgtta gcacacatat gcacatgtat 480
atg 483

<210> 652

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 652

acctcatgag cagttgcac aatcataagt cgttgctcgt agctcatcgc aagcaggtgc 60
ccgcaaatta tcgcatggtg attcttgagt ttctcgtaa ttctaaaatg taaaataatt 120
tacatgtaat atatacccaa taactatta catatgaaaa cttattatat atttcttcaa 180
ttcaattatt attattatat tcaatatatc tagcaaataa cgatcgccca tctcttcgcg 240
ttcagtggtg atgtcaaacc tgttcaaagg agattggaaa cacggtgtat ttaattgtgg 300
tagatatggt gttatcctct tttggtgoga atagtattat ttttgactag cttattgaat 360
aatgacccat aagtatgggt tnaaaaantc ttagcntttc catgtaatta ttttgaaaga 420
catattgaca aatcgttgca caaaganctc ccatttngtt atgaaattca gatgnnttag 480
ttttagaagg ggctatttat 500

<210> 653

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 653

acaatgtata ttgaataaga tgtgagcgt acottgnagg gatgtcgcat tgagaattta 60
ggtgtggaaa attgcaatag cattaaaata taccatttga attagatttt taaataatac 120
caaaacaaat cataaattaa attctttcgt agatattcat acataaatat tggctttcca 180
gaaagacaac tatgtagatt tcacattcac tccaaaatta atgagttatt atataacaaa 240
tttttaaata acttatatac aaacactatg cacaagtgtt gatgatatat gaccttaaaa 300
agtaattaaa tattgcgctt aaaaatcaaa ttacatata catttaccca ttctatctct 360
agaaaactag aacagatatt cttatgaaaa atttgctatt ttaaataatct caaaggtttg 420
gaccatcttc ataataaaat ccgtntctcg cgngacacgc tagcgatctg ggatttcata 480
cctgnggcgg tcggctgctt 500

<210> 654

<211> 330

<212> DNA

<213> Ctenocephalides felis

<400> 654

nccgcancca aataaactcc ttttcataaa ttaatccntt atgttaacaa ttttttttaa 60
tattganaac aaccttttaa natogatgac cttaacatat taaagcctta cttaccgcaa 120
aatgaagatc aaattgtgga ttgtctttta ttttttacac attccaaact tttgtcaatg 180
acaatataat attaataatt ttcacttatt ttatgtcaca cttattatta ttattatgat 240
cgaaattaat ttttaatttaa taattaatat tcgttgtaac ctcatggaag tatcggtctt 300
aactacgcgg ctttgtaacg ataacaatgt 330

<210> 655

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 655

nttctagccc ttgggnntttt attcccctaa cggggccncg ggcnnngggac caaaatagan 60
cntaatatth ttaatacngg gntaaaagaa anggtaaaan tttgggaggn tttaaaatct 120
ctaacnaggg taaaccnnaa acnaaaaaaa taatttaatc attactctct ttaactttat 180
ccontggcctt tataataactt atagataaaa tagaaaatag tttaaatttt nctnaacaat 240
gaattcattg ntttagagac gctctttact gntctatcct acaaaatact atacnagccn 300
agtatttttg aatatgaatt ggatatttct aataaaagcta taaatacnta cngtattttt 360
gaattttaa ac ntttctttat ggtatcttcc ncagatattt ggtttccata tctacnaton 420
contgaggtt ttttctaatt tcatcaattc agaagacntt tttttttcaa ttttcattat 480
atttgccnch ggattttcaac 500

<210> 656

<211> 73

<212> DNA

<213> Ctenocephalides felis

<400> 656

acaaaaacat aacttcattg agaaaaagca attaaatcat tttcacactt tctaattaaa 60
atgaaatgat cgt 73

<210> 657

<211> 425

<212> DNA

<213> Ctenocephalides felis

<400> 657

acaccocctga tattacaagt tgctaaccac tgtcataata ttagatttnt aacaagtcca 60
gactgaaatc ttagaaccct tgagcttttag ctgatattaa cggttcatat taacttttct 120
cagactattg cgtagtagct gacattacac attctctcac gaaatcataa acctacatcg 180
acaaatctca gcaagatcat attatcgaca ttccgcctag ttaacaattt tcaccaagtt 240

tgcatgaata acattttgtt taatcggtta aattcattac tttgtccttt tcgttgcata 300
 gaatattcga gacaaatccc cactacgttt caaaggattt tagttttaat aattatgaaa 360
 taaatcagtc ttaatctgtc ggtcgccggg caaacacttc tctttcaata ctttcgggtt 420
 ccttg 425

<210> 658

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 658

gatagatccn tttcatgata aacataataa tacaaaattt taactcaatt tcaccgaaat 60
 gcttaaaatg taaaaccttg cactcgtc gccaatataa tcttgaacga aatagaaaac 120
 gacgttgctc tttcaaatct tgcataatat tttcctaga acacttaata aaacaccgat 180
 ttaataagat ttttattgnc attatattgn tcattacatg attttcgta aaatatatat 240
 tttaggtatt tgcaaaaaaa cgacgaaaaa cgacgaaaaa cgccaaaaat atatgaatct 300
 ttagtagcca gtaacttgaa aagtatgaag ttttttgaa aaactataaa atccttattt 360
 ttaaaaaaat acgtaattaa acaattgaga agaaccgaa ttgntttcac ttttgaactt 420
 ggtgtagatg aacctaatc ctaatttcac gcnattcggg acacagtaaa aaattcagac 480
 acaaaacgct cgttactgcc 500

<210> 659

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 659

acaacattgt tgtaaaataat atgttctoga tccaaaatac aatactgtag ggaaataata 60
 tgtgctcgaa tttaaagaaa tgtccgggct cgtgtaaaact acatatatga tgaataatat 120
 aatcatcaaa tactattggg tataaagaaa atgcattgaa tattccagag tataaataat 180
 aactacttta cgctcccggt tgggctcgaa ccaccaacct ttcgggttaac agccgagcgc 240
 gctagccaat tgcgccacgg aggtctttat cgcttcttga taatagtatg aataaattat 300
 ttatagcatg aacaataatt ataattattg aacaataatg agtataaaca acaattattc 360
 ttatacccaa taaactacac taatctgtaa cccacggcgc aaccagtgcc caatacctgt 420
 catacatcgc gctcgattca cttcacacac aaatagttaa catttacttc actcctataa 480
 actatacaaa ctatcaaagt 500

<210> 660

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 660

ccttttagcga accgcgtcag aattttttcca ggattcctca atttgtttat aaaaatataa 60
 taaattttca agtatittcaa ttttatttgt aaaactacat ttttgatca ttattatcac 120

gagcaagtat tttgtgccgt ttagaaaaac agctggaagc acttaatgct tattgtgttc 180
atgtttctcat tactcaggaa tatgagaatt gagaaatggt tcatttgtaa gtccacactt 240
tttcattcat tagaaagctc tcgtcttgaa gtcgtttact caataattta catgtttatc 300
taaataaaga aatagtagaa acttaaatac aaattggaat aagagcatcg gtagaatata 360
gtataaacia caaagcaatt ttaaactatt aaattacaaa ataatoctca gtttctctat 420
tgtcaaaggg atgtgaaata ttttgatgnt taattttcaa aatcttttat ttaattaatc 480
aaaatattat tccagcgact 500

<210> 661

<211> 412

<212> DNA

<213> Ctenocephalides felis

<400> 661

actttttgat atttatgtaa tgattattta ttcaccgatg ttaacagctc aacgtctgaa 60
cgaatactcc aattaaagggt tggatcagcg aattattatt acaaatgaag atactgagga 120
atgactggag atagctgcaa caaactatct atgtaaatac aagcagtaaa ttacctgcaa 180
cagttttaca caaagtattg tattacgtaa tagccggtgg tgattttctg tttcaaaaag 240
ttataacttt tcaagactgc cagtatgggc aagactactg tataaaaatta tcaacaaatt 300
atagaaatat ttacaataaa caagggttta aatttttaaat tatataaata aataaatagt 360
ttgatactat ttaacaatat ggtaattat attgctcttc gaatgatatt tg 412

<210> 662

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 662

accatagtgg cgcttagact gtgcttagct tgggtaaatt tttaaaattt tgaatccaaa 60
attacataaa ttttttatgg aaaaataatt gtttatcttc aaaagcaatt gttttgtcaa 120
tacaagcaga aagtttagtc aaaattctag tagatacttt ataagaacaa aaattaggca 180
aaataatatt ttgatttttg gcaagtttca agtggtaaat agttacttaa tgcaattgac 240
tccattgtaa aaattggtga gggtaagtta tagtaatagc aaaaaaaagg agaatgaaat 300
atttcacatg tctttacatt gcaaagggtt ctgatcggtt taaaaaaaat gatgtatgaa 360
tgtgtgtgag aagtaatttt tctcattatg ttatatitaa taaaaagtaa aaatcagaa 420
tttagggata aaagtagttt atgctgataa aaaatctata tgtaaaattt ttaggtatat 480
cggtccagta aaaggtgaga 500

<210> 663

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 663

ncatnaatta cttgagccac aatgtataaa tntttcacta ttaagatnta taacttntct 60

ttttcaaatac ntatatttggg ataaantaac ttatcataaa ataaaataact gggtaaaaagt 120
 atggataaaa ntnatatcan caataaattt tcatgaatct atntaataaa atggncaaca 180
 tcgntnttta ataaatgggc ttcaaatttg actngaata gaatacttgnta ttgcttccta 240
 ggtaaaattn atatttttaa tggacaaaat gttactataa tattcttnna tttatataac 300
 aagaaaaata attctaaaat caatttcttt gattcacctg ttattttcca ngcgcgcggt 360
 aaaganaaaa tagttacnga ataatanaaa tcaaaagtga accggactgt gtgcaaattt 420
 tatgatcgag atcttgaaca gagtntttgt aacacgcac tntggtttag tgccattgaa 480
 tantgttatg gtgggggtgc 500

<210> 664

<211> 295

<212> DNA

<213> *Ctenocephalides felis*

<400> 664

acttatgaca tatcatatta taagtttcta acaataatcc agtttcacta atnaatattc 60
 cnggaactat gcttatgaaa aatgaattaa ataaaacatg aattgctaca tttattcaaa 120
 atttttgaag cattaacatt agtatacagc atagaatgct acaattagcc agatagtcag 180
 aaatcatttc aaaaattctc cgttcatggc tttgttaaca acaattattt taaacggatg 240
 ccagtttagat tgttttagaa taaaactttt gagagaaata taatataata atagt 295

<210> 665

<211> 310

<212> DNA

<213> *Ctenocephalides felis*

<400> 665

acttcaaaaa cgcgataaaa tagcggaag tctaattttc tagtttttat aattaattaa 60
 ttttcacagg cctataatat tttaatatta tgattttgtt tatcatctct atcaccatgc 120
 gacgtttcat aaattttgca gataagtata tctgaggttc tccttgtaag ttgtccgtgt 180
 tatttaaaac aagtatgatt taatttagca agaaccaaaa ttagatactt ttaaaaaaaa 240
 ttaaaaatgt aaaaaaata tttgcaaat tttcccata tactattcca cttaaaaatg 300
 cccctgttgt 310

<210> 666

<211> 365

<212> DNA

<213> *Ctenocephalides felis*

<400> 666

acaaaagcatc tacatatcgg agcctccagc aatattttcg cataatattt ttctgcgatc 60
 gattttctgt caaacgctac tcataaatta tacogacaga acgaacgtag cgaacatgaa 120
 aaatatctgc gcaaaatctg cgagctataa ttcaaacttt aaatatagtc ccgctttcac 180
 aaacagaaga tcagatcaaa agcttcgata cggcgataaa tcggatatta taccgactca 240
 aaacgtcgag aatggagaaa ataatacgat gctgtcgaat ccggtaatag atttgatagc 300

aaagtataaa gttgtgtaat tacaaaccca taaatcattt tctccataaa tatcaaaatc 360
tcggt 365

<210> 667
<211> 385
<212> DNA
<213> Ctenocephalides felis

<400> 667
tggngtTTTT antgggactt ttnaaanccc cgccgngcag tacctttatt attatgcttt 60
ggttcacgtc gggataaaaa tgttttgaac aagacaaagt ataataaaa taagnataaa 120
atgttttgaa caaaactaaa ttaatatata ccatttctgg gaaccattgc agactgataa 180
gatatcaa at gctattgaaa cgatatgatt tcaagaatca aaacgctttc atctatcttt 240
tatatttggc tatatttgtc attttccatt tatacagtga aagccgacta ttttactaa 300
aaaaccgggt tttgaattcc acaatttccg caaaaaaccg gttatcaaaa ccgggtttttg 360
aaaaccgaca aatcctactt acagt 385

<210> 668
<211> 160
<212> DNA
<213> Ctenocephalides felis

<400> 668
aggnntngng aaccctttna aancnagact tncctttaann ccccggnagt tacatggntc 60
aaggagncta gccgccatca gggaaagttn cagacatacc gtttatgtcg aacaaatgaa 120
agatggcgaa gngctgtca aactggaaat ttcanaatgt 160

<210> 669
<211> 320
<212> DNA
<213> Ctenocephalides felis

<400> 669
atattgcttc tacaaatgca atgaaaagtc aatttgtntt gaatgtcacg taaactaata 60
aaggaactta tagataaatt atagcgacac aataatattt ttatttcata cggataata 120
tcatcattag tataaaattt tccgaaatac tcgcataaac tgctaataata atgaaaacaa 180
ctcacgtatt ccgcaagggt gtccaatgca tggatcgaca catatatatt gagaacacgc 240
taaagtgttg gggcattcac tatcgctaaa gcattcgccc tgaaacgaaa taaaaaattt 300
aatttaacat ttgactgagt 320

<210> 670
<211> 500
<212> DNA
<213> Ctenocephalides felis

Country	Year	Value	Unit
Algeria	1990	1.00	1000
Algeria	1991	1.00	1000
Algeria	1992	1.00	1000
Algeria	1993	1.00	1000
Algeria	1994	1.00	1000
Algeria	1995	1.00	1000
Algeria	1996	1.00	1000
Algeria	1997	1.00	1000
Algeria	1998	1.00	1000
Algeria	1999	1.00	1000
Algeria	2000	1.00	1000
Algeria	2001	1.00	1000
Algeria	2002	1.00	1000
Algeria	2003	1.00	1000
Algeria	2004	1.00	1000
Algeria	2005	1.00	1000
Algeria	2006	1.00	1000
Algeria	2007	1.00	1000
Algeria	2008	1.00	1000
Algeria	2009	1.00	1000
Algeria	2010	1.00	1000
Algeria	2011	1.00	1000
Algeria	2012	1.00	1000
Algeria	2013	1.00	1000
Algeria	2014	1.00	1000
Algeria	2015	1.00	1000
Algeria	2016	1.00	1000
Algeria	2017	1.00	1000
Algeria	2018	1.00	1000
Algeria	2019	1.00	1000
Algeria	2020	1.00	1000
Algeria	2021	1.00	1000
Algeria	2022	1.00	1000
Algeria	2023	1.00	1000
Algeria	2024	1.00	1000
Algeria	2025	1.00	1000
Algeria	2026	1.00	1000
Algeria	2027	1.00	1000
Algeria	2028	1.00	1000
Algeria	2029	1.00	1000
Algeria	2030	1.00	1000
Algeria	2031	1.00	1000
Algeria	2032	1.00	1000
Algeria	2033	1.00	1000
Algeria	2034	1.00	1000
Algeria	2035	1.00	1000
Algeria	2036	1.00	1000
Algeria	2037	1.00	1000
Algeria	2038	1.00	1000
Algeria	2039	1.00	1000
Algeria	2040	1.00	1000
Algeria	2041	1.00	1000
Algeria	2042	1.00	1000
Algeria	2043	1.00	1000
Algeria	2044	1.00	1000
Algeria	2045	1.00	1000
Algeria	2046	1.00	1000
Algeria	2047	1.00	1000
Algeria	2048	1.00	1000
Algeria	2049	1.00	1000
Algeria	2050	1.00	1000
Algeria	2051	1.00	1000
Algeria	2052	1.00	1000
Algeria	2053	1.00	1000
Algeria	2054	1.00	1000
Algeria	2055	1.00	1000
Algeria	2056	1.00	1000
Algeria	2057	1.00	1000
Algeria	2058	1.00	1000
Algeria	2059	1.00	1000
Algeria	2060	1.00	1000
Algeria	2061	1.00	1000
Algeria	2062	1.00	1000
Algeria	2063	1.00	1000
Algeria	2064	1.00	1000
Algeria	2065	1.00	1000
Algeria	2066	1.00	1000
Algeria	2067	1.00	1000
Algeria	2068	1.00	1000
Algeria	2069	1.00	1000
Algeria	2070	1.00	1000
Algeria	2071	1.00	1000
Algeria	2072	1.00	1000
Algeria	2073	1.00	1000
Algeria	2074	1.00	1000
Algeria	2075	1.00	1000
Algeria	2076	1.00	1000
Algeria	2077	1.00	1000

<210> 674

<212> DNA

<400> 674

<210> 675

<212> DNA

<400> 675

<210> 676

<212> DNA

<400> 676

acttcccaaa agttgncagc gaaggatcct acaagggcga cagcagcttt ggagattacc 60
 aaatcaagag ccngngaatt ttcaacgtca ccatgtatga tgtgacagtc acttggaana 120
 tcgaaggagc aactgaagaa cgcgatggag aaacttacat gcgcatcaaa cacttccgtg 180
 tcagcccaaa agttggtgat atgaaaatct atgcaagtgg cttataccag atgaaggact 240
 caataacgca gccgntgcct tcatgaacca atactggcaa cctgccttcc aggcactttt 300
 accatacgca gaagaacacg gagaccaaata catgacaaac tttgtcaacg aaatgttctt 360
 gagaatccca ttcaacaaat taatgccagn tgaataaagc caaaatttaa atatgtatat 420
 aaaaaacata tagtaataaa gcaaaattat tttgatattt tttggngatt ccaaccaacc 480
 aaattctatg taggttgat 500

<210> 677

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 677

acgtatacta tactctatac agctgtatgt gccacacacc aataatgtat caatatgata 60
 caaagaaccg atttgtaaca tttttgtagg gcctttccat gacgtcacgc acatgcattg 120
 aatgtttttt ttgttcattt agaatagtta ggaaggtagc caaaaactcg aatccaaata 180
 tttatacgta tccctttttt ttagtttgaa ttttgaattt gtatcaaatt gatactaggg 240
 acggatgcgg gttaaaccaa aaagatcgga ttagtgatag tttcaaattt agcatggaat 300
 cattcggaatt atttccctact attaaagacc ctacgagaat aactaactct tcctcatatt 360
 gtattgataa ttttttcaca aatataatcta cggtaaattc atgtgtaatt aataccggtc 420
 tttctgacca ttatggaatt togtctctct tgcctaatac tactaattct acttcccattg 480
 tgnatcgna tataaaagaa 500

<210> 678

<211> 475

<212> DNA

<213> Ctenocephalides felis

<400> 678

acactatgat cagctcaaaa aataacttga acgcatatga taaactaaac cgnactcaaa 60
 attttaatta attaattata gattattggg tagatcttta tctataattt aataaaatac 120
 aacttatatt tctgaaagca tagcactgaa taattatctg acaatgcgtt acccatgtag 180
 atattttact aatgggaaca atttaaatat ttttaatttc aaaattagta atgcaaatac 240
 ttgcatgttt tgtgtttatt ttttaatttc gggattaata atcctggcag ttatttagac 300
 aataatgctc aaaaaatata taaattacaa cttgtttcat ttttttttta aacacatctc 360
 tacataaatt aaatacgtaa aatataaatt acatattacg aatatatttt gtataaaacc 420
 gacaogccac tgatggcatg ntggtaattc atgacattaa aatgcacccc ggggn 475

<210> 679

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 679

acaaagntat taacataatt gggttaacaa ataattntaa atatgatnat taaacagngc 60
 agggngncag ntaaaattat gccaaagtga tggttaattc gagttcataa aatttaataa 120
 atgatgcngt catatttgaa gcatgtatga aataaaaaggc ctttagagta aatacaata 180
 tcaaactttc tatataggnn acaaaattga aattaaatat tcaaggaata ttttactcc 240
 tagtagatgc gtcattttta caaaataaaa aacattatta attaataacc ataataattt 300
 aaaccattat tctgatatcc taggntgcat tgcaatgtca aagctcttat cgctgatccc 360
 cgagaaagct ctttaatat catatgagct tgatttctcc ctttgcgntt tataagnaaa 420
 tttcaaagat ttgnttcgat attattaaca tttgcaatat ttatatttga tcacaaatta 480
 gtgctaaagg tgaaattatt 500

<210> 680

<211> 475

<212> DNA

<213> Ctenocephalides felis

<400> 680

cagcatattt tatacgcaat gttacttaaa aaaatgttac atttttatat aagaagaaat 60
 naacattatt atttattagt ctgatttcat ttatcttaat acgatattcc tttaaaaaga 120
 aataattatt aatttttaag acaaatcaag ataataatctt gacacttggt tatacaagaa 180
 atcgacttaa gatgacattt attttcaggg attatgagat ttaaaattta tatggttccg 240
 aaaaactcag actcaagaaa cattagtgtg aattgaagtg attgcaaaaa aattaaaatt 300
 gaaaatcttt gaattctgat attttgcat accttaggaa aaattgatgt atgtgtgtgt 360
 atgtttgtat gcatacgcg atacaactgt tcgttgacga ttcgcacgga tcaaccaatt 420
 ttaattggcg gcaaaaacga ttagacattt gcacatcgag attttaataa tatgt 475

<210> 681

<211> 387

<212> DNA

<213> Ctenocephalides felis

<400> 681

acacaaaata tgacgagaca cgactttaat aaaaacatat tttgtgcaca tatttttatt 60
 caaagattta ttttgaagtc attgttaatg agagtaattg atagtgaaga ttttagcttc 120
 ttcataaaat cagataaaac cggtaaaatg aagtatcaag aattgaagaa atttttgtaa 180
 ttggcaaatt caaactatgc actcaaattt tgtattttaa aataaggcgg catcaaaatg 240
 taattaaaaa tttcataaat gtttgtaaca tgagtgcatt ttccacagaa tgtcccatat 300
 aaaacgggca tcacaaaaaa gacatgtaag acataactaa cataaaatac cnttttctat 360
 gagacatcct cataactctc aactcaa 387

<210> 682

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 682

```
ncctattaat gttaaaagaa taataatnan gggtagagttt taccgatggg tggagaaagt 60
gtataaatcg ttttngccga tggatttggt taataaaaag aaaactgcac cacctgccac 120
gtntttataa tanttctata atctgcaata aaaatcatct gccatgaaat atgctccaaa 180
ataaaaaacg agtatatcgt gaaaaaatat tttgaaagtt ataacaaatg cgttgcaactt 240
tctagtttga ttagttcatg taaaaaataa ttattcacgg catttcaata catgctccca 300
atatatttca aattattcac ccaaataaga aacacnctcg tgacaattgc caaaccattt 360
tagataaaat atgtaaatat atcaaatgat cattatatgt ctttaacaaag tttataagtt 420
atcaataaat aagaatgant ttatattatt atatctataa ataagtagac gtgtntatcc 480
accaatgaat ttcaattatt 500
```

<210> 683

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 683

```
acttcccgtg acgtaattaa aaattcgagg aatattacat gttttcaagt agattattat 60
aaataactgta acttatatat gatcacggaa aagtaaataa acaaaattaa tcaatcgaat 120
ttaaatctga ggacattgta taatatttat aagaattata taaactgaag tgcgaattat 180
tttgaatatt cagaacaaaa tttggcaata aaaaaaatcc aaaatcattt gtttcgtcaa 240
cacaagcaga aagttttctg aatcattcaa atcggatgct tagttctctc aaaaactgcc 300
attttctgca catttagttt ggtatctaca aatcggtggt acctgtcttt gccaaaaact 360
aatttctttc tatttctatt ttctgcactc ttttctccgt atcaccgaaa cggtcggacc 420
gacttttgog aaaaactaat cagcacattt ccctatcaat aggaatcgaa tgttttttga 480
acaattcaaa ttggtgatcc 500
```

<210> 684

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 684

```
taagttagga gatttatttt gttaatgtca ggtagaagaa gatagatgta tgaaaggng 60
taaggcttga acaatatcaa aaaaattgta attngtattt ttcagacaat agctaactctg 120
tgaaaaaaca ttttttaact ttcccgtagt taatacgata gcattcagat tcattttttt 180
tcatcttctt catcagatta tttagaggga tggccagatg ccantttttt gagaccttta 240
ggtcttttagc tcacctttta caattaaatc tttatgactg tttttaantt ttttttctaa 300
attctcaaat caatcattaa taacttgcgt aaaatttatg tctcttacca aatactctct 360
aaaatactac tacaataatt tcatcttaaa aaagattgct tataaacttc gaaatttcag 420
atatatttta aagaactata tatataattg catatgttct gcttacgctt tgagcaaata 480
actaacatca gtaatattaa 500
```

<210> 685

<211> 343
 <212> DNA
 <213> Ctenocephalides felis

<400> 685
 caaaantgcg tctgagggac tgnntcttaa tttattcata atatcaaaat agttattnat 60
 ttgcaaattg ntggtaattc actcgcgttt gtttatttat aattatatct ggntttcttc 120
 tcgatttgct atttaacctn tagcagcctt ttgcactttt gctgntggta ataatttcct 180
 atccgtaaca acacaatggg aaactgggaa taatocgtcc ttaagcacac atacgcaatc 240
 actgtgcatt tcagttctac taatttgggc taccaaactg tttgatacta cactgatgaa 300
 gttcttggtt tgcttttggg ctttagcgtg ttggaagntc tgt 343

<210> 686
 <211> 436
 <212> DNA
 <213> Ctenocephalides felis

<400> 686
 acttcgtaat gctcaattgt aaccgggttt gtattccatg ttagcatagc acttggtgctt 60
 gtaacagact taattctaag atttatcacg tcagttttta tattaggctc acttgctgctt 120
 atattaattt cagcgtaatc tacaacatca ctttctatac gctcggcagt atgattccat 180
 aatcctattt catttttaat tctatagcta tttaaaatag ttttaggaat agatttagaa 240
 aaaatacgaa ttctgtaagt cttcaaaggg tgtaaattcg ataaagatat tttagtatca 300
 gtaaaatatt catcccttgg tttatataca gtattgcggt cgcaatcgaa acattttatg 360
 ctataaacia taatttcato attcgggttt cttgaatctt ttgtagcatt agcatctttt 420
 ggttgtccat gtgagt 436

<210> 687
 <211> 403
 <212> DNA
 <213> Ctenocephalides felis

<400> 687
 accgttcagt gcgtttataa tgaatattat acagaagtag tattaagata gaattttttt 60
 ccgcggaccg gaataatata ttaaggtaag gcaaggcata atatttataa gatacacaag 120
 acattttgcc ttgaatatta atacatataa tataaagatc actatcaagg tgaggcatat 180
 tattttattaa taacttatta ttattttaac gagtttttat gttttcgttt taggggtgta 240
 tagcgaact ttttcaagtt atcaagttaa taatataaca atattaaggt gaagcatatt 300
 aatttatatt ataagataca aaataatttt tttacataat tatacttato ctaatttagc 360
 cttattaaat tttagttttt tattttttaga atatttcctt tgt 403

<210> 688
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

Variable	Mean	SD	Min	Max
Age	34.5	10.2	21	55
Gender	1.0	0.0	0	1
Marital status	1.0	0.0	0	1
Education	12.5	1.5	9	16
Income	1.5	0.5	1	3
Occupation	1.0	0.0	0	1
Health status	1.0	0.0	0	1
Smoking status	1.0	0.0	0	1
Alcohol consumption	1.0	0.0	0	1
Exercise frequency	1.0	0.0	0	1
Stress level	1.0	0.0	0	1
Sleep quality	1.0	0.0	0	1
Appetite	1.0	0.0	0	1
Weight change	1.0	0.0	0	1
Energy level	1.0	0.0	0	1
Mood stability	1.0	0.0	0	1
Concentration	1.0	0.0	0	1
Memory	1.0	0.0	0	1
Emotional stability	1.0	0.0	0	1
Resilience	1.0	0.0	0	1
Optimism	1.0	0.0	0	1
Gratitude	1.0	0.0	0	1
Forgiveness	1.0	0.0	0	1
Compassion	1.0	0.0	0	1
Patience	1.0	0.0	0	1
Kindness	1.0	0.0	0	1
Generosity	1.0	0.0	0	1
Humility	1.0	0.0	0	1
Modesty	1.0	0.0	0	1
Shyness	1.0	0.0	0	1
Introversion	1.0	0.0	0	1
Extroversion	1.0	0.0	0	1
Sensitiveness	1.0	0.0	0	1
Emotional sensitivity	1.0	0.0	0	1
Empathy	1.0	0.0	0	1
Understanding	1.0	0.0	0	1
Acceptance	1.0	0.0	0	1
Openness	1.0	0.0	0	1
Curiosity	1.0	0.0	0	1
Imagination	1.0	0.0	0	1
Creativity	1.0	0.0	0	1
Innovation	1.0	0.0	0	1
Leadership	1.0	0.0	0	1
Teamwork	1.0	0.0	0	1
Communication	1.0	0.0	0	1
Interpersonal skills	1.0	0.0	0	1
Conflict resolution	1.0	0.0	0	1
Problem-solving	1.0	0.0	0	1
Decision-making	1.0	0.0	0	1
Time management	1.0	0.0	0	1
Organization	1.0	0.0	0	1
Productivity	1.0	0.0	0	1
Efficiency	1.0	0.0	0	1
Focus	1.0	0.0	0	1
Attention span	1.0	0.0	0	1
Memory retention	1.0	0.0	0	1
Learning ability	1.0	0.0	0	1
Adaptability	1.0	0.0	0	1
Flexibility	1.0	0.0	0	1
Resilience	1.0	0.0	0	1
Stress management	1.0	0.0	0	1
Emotional regulation	1.0	0.0	0	1
Self-control	1.0	0.0	0	1
Discipline	1.0	0.0	0	1
Responsibility	1.0	0.0	0	1
Accountability	1.0	0.0	0	1
Integrity	1.0	0.0	0	1
Honesty	1.0	0.0	0	1
Trustworthiness	1.0	0.0	0	1
Reliability	1.0	0.0	0	1
Consistency	1.0	0.0	0	1
Stability	1.0	0.0	0	1
Endurance	1.0	0.0	0	1
Persistence	1.0	0.0	0	1
Determination	1.0	0.0	0	1
Commitment	1.0	0.0	0	1
Dedication	1.0	0.0	0	1
Passion	1.0	0.0	0	1
Enthusiasm	1.0	0.0	0	1
Optimism	1.0	0.0	0	1
Positivity	1.0	0.0	0	1
Hope	1.0	0.0	0	1
Confidence	1.0	0.0	0	1
Self-esteem	1.0	0.0	0	1
Self-worth	1.0	0.0	0	1
Self-respect	1.0	0.0		

<400> 691

accaaaacct agataacata atttatcacg aataaattta ataaaatata aatataaata 60
aaacaatata atacaaatat ttaattaatg cattttaatta tatttagtct tatttgtaat 120
gaaattagga aattttttatt atactctacg gaaaggtaat taccctatga gaagttaaac 180
tcctcgagtt cttcgaactt taccacacaa acttcataatc ttatgtttgt tcaaaaacta 240
ctatttcgca ataaaaatca ttttaaaaaag aagccaaaaa cccaactcca attcgtttgtt 300
tcaaagggtg cgaaattata gtaatttatt cgccgcgtgt ggcacaaaac taagttttta 360
aaaaataaaa cagattcttc catataaaaa ttggtctgga taatgacggg cgccgatctt 420
cctcttggtg ataaaatctt ggtgaacttt tgccaagaaa gtcaataaaa cgccaattnt 480
tttcattcgt atcattatta 500

<210> 692

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 692

acacaatggc aagtaattct tatacataat cagttttcat atattttaca tttcgtatat 60
tgatagttat agatatttta gtttaattcaa tccttttcag ttaaaaatca aatgaactag 120
tttatttttag atcacatatt ttacaatatc acattcattt ttttatgttt ttcaaaaacta 180
cactcataaa attataaaca ttcataaaat tgctagaata aaaattgtta aatatgtaga 240
taaatacctcg tttctaattt ttacatcttg attaaaaata aaatagtttag ttcacaatta 300
tttgtaaagt gaattaaaaa aattctaata acagaataaa aacttttaggc taatataagt 360
cagttttaca taaaagttta aatgttatgt tgctatatata tattatataat attacatcgc 420
ataccataac tacattttaa cacaaagtat tataatactt agtattaatg aatactaaag 480
tgnattatgc ataatatatt 500

<210> 693

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 693

aatctttggt tttcatggta atatatctag gtgaaaattn nnngcaactt ttagacaatt 60
tttaattgac attgctaatt aattaaataa ataaaaatga cttaaagtta tattaataat 120
taataattac acaaaatagc gtattgagtc ttcttctgat ataactttcc aaggactaca 180
atattacatc ctaggatatg ataaaaatca gtgatgataa aatggttggt tgatcaggaa 240
tcatagtttt gttttacatt ttcaagacat taagggtggg gctagaatag taataataat 300
ccatagcaga aaataaaaaa tatacaaatt tcttttagtt cttcttatga gtcttcaaat 360
agaaaccaat ttatcaaaac caaatttttc aattttcgtg tttacacacc gtatgagaag 420
tgacggtaag tggctctcag gaagacgtnc agaagtagtg gagctgtagc tggatctgta 480
gtccttggtc atctcnagtc 500

<210> 694

<211> 434

<212> DNA

<213> Ctenocephalides felis

<400> 694

tgaataanta ctagtnaaac ttannttttc gttgttaccg aataaatacc tgggngagna 60
nntanngtaa ttacagactc ctttttatat aaaaaattaa aaatttagtc gaaatttatt 120
tatnttgtga natctatact tattttatgn cnnttttaaa tatttatntt tagaacgttt 180
gcataattat agttaccann ttggaattac ttataaccaga antaanttaa aaaaaaacan 240
ttcagtgccct tatgcaagtg gnttataagg gngtttatgt aaacagnaaa atatgtgcaa 300
tatatcaaac taattatctg gcgtagagaa ntgaacagtn ttctgggcaa naattagtna 360
acntttgggt tgatatataa accaatagag gnttatcttt ttgtgtcata taggtggaga 420
ctcgcttgaa aagt 434

<210> 695

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 695

tcttgaatta taagtgatca ttatganntt tattattgtc aatatttggg gggatataaat 60
tatgattaac catatgattt agaattttat tcctcgcggt atataaatgt atatttgngt 120
aaatnttgaa ttctaattta agaacagggt aatantttta ttttattgtn ttcattaaaa 180
ttcctntaat tccgtataag catctttacg actttattca gcgattnttc ctattttttt 240
tatcagctta taaatgtcan ttcttttgaa aagtttatat gattactttg aagtgattta 300
tcaatathtt cttaaatcat caatttttct tttgaaaatc agggctggcg gaaggcgng 360
tctgctaggt ctgcaaagcc ttagggcatt atataaatat gttgacgagt gcatataaat 420
atgtctgaaa aaaatcactc tgcgtattaa ttaatatgga ttaaataact taataatttt 480
taacttccga tggnnagtta 500

<210> 696

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 696

tantttcttat acataattag ttttcatata tttacanttt cgnatggngg ggngttatag 60
atatttttagt tnatncaatc ctttcagnta aaaatcaaat gaactanttt attttanatc 120
acatatttta caatatcaca ttcntttott tatgtttttc aaaactacac tcataaaaatt 180
ataaacattc ataaaattgc tagaataaaa attgttaaat atgtagataa atcctcgttt 240
ctaattttta catcttgatt aaaataaaaa tagttagttc acanttattt gttaatggaa 300
ttaaantant tctantaaca gaataaaaaac tttaggctaa tataagtcag cttacaataa 360
aagttaaaat gttatgttgc tatattatat tatatatatt acatcgcata ccataactac 420
atttaaacac aaagtatata atacttagta ttaatgaata cttaaagngta ttatgcataa 480
tatattttta atataaaaat 500

<210> 697
 <211> 454
 <212> DNA
 <213> Ctenocephalides felis

<400> 697
 acataattct taaataataa aatgtgtttt ntntttttaa ccaanaaaaa ttttgggggg 60
 gntttntata aaaaaaatna cacttatttt ttattttatta tttcaataat taattaatta 120
 ataataatcc aataatattt atattttatc agaaattaaa taattttaatt aaatattgac 180
 tataatctag atgtgnataaa ncaaaattac nctttacaaa gtcaattntt taaaattgaa 240
 aaatttttnat ttcctagtaa taaaatataa aatcgtagaa ataaatgntt gatagtggat 300
 catattggat aatatatgct cattatattt tattatatat gtgggctctt taggcaaatt 360
 aaaattctgc ggcaaaanca tattcatcca gcaattcgog agtttagaac ataattattg 420
 aaattatata taacattttt aattcattca ttgt 454

<210> 698
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 698
 ggggngtgac aatggngtgt aaanaanagc atgtatatan agtnactaa ttngatctat 60
 agngagnggg gnggngaaat ntactgggna gtcgccttan aacgtngnga ctgggaaaaa 120
 ttctgnggtt acncaattta anagcnnatg agcanaattn nacttttnat cagcntgggn 180
 aaatanengn anaggtncgc nactnatatg nnccttccca atanntngcg nanatnttga 240
 ttggtgaaat gngatgtgtn tntgtagcag gctcattaag cagcnggann nngtngtggn 300
 natnntnna ntnggatact cnttatactt tgaaaanant ccttanagca tnggtnttaa 360
 nannttctt tnattatntt tnaaggtnaa ggnttaaaaa gcttannnnc gtntatgttt 420
 naaaanantt tgntttcntt annngagant aatttatgag tnttatnngn ttntagatnt 480
 nttaaanann tnaattatgg 500

<210> 699
 <211> 436
 <212> DNA
 <213> Ctenocephalides felis

<400> 699
 attatataatn tgcatgttaa tttnaaataa cctgtctgca nttgnaaatt ngggngggtt 60
 ttcgttttta atggatagtt atttttgtta ctcaaagttt ttatggagaa ttncgttttt 120
 tggatatgtc gctttatcaa tggcatattg gaaaaaaatt taaaatcact tatgttttaga 180
 gaagaactna gaaanaaaaa tattatgtta aacagcttct ctgaagtggg atataaattt 240
 ttcaaaagca tngctgntta ttgaaacaga agtatcctat gactatgttg caagggattc 300
 agttaattaa actcaggtca aggaatacga gagtctgaag atcaatttng aaaaattggg 360
 caaaataaaa atatttcaaa agctagtaga aacatctgga agataataga aacgagctga 420
 ataagcactg catagt 436

<210> 700
 <211> 225
 <212> DNA
 <213> Ctenocephalides felis

<400> 700
 cttatttact gcagcatacc atacgttgaa gatttatatt attagtnttg ccaaaatddd 60
 gttagaagaa aacatttttag tatcaggctc atccctacac tccttcaacc aattctttac 120
 gaacattaaa tccccaccc catccaatct caatactaatt gtagtatatt ctgnttcttg 180
 taatgactgt gcttttcaat atattggaca aacctcccaa tatgt 225

<210> 701
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 701
 ngctaaatgt gcaaaaatga cagagagAAC tangctgtcc gatttgaatg attcaaagaa 60
 gggggggggc ttgtttcaac aaaatanttg ctcttggaAA aaaaattaaa ntttttattt 120
 tnaaaaaaaaa tttttntttg tatatcgaaa atanttcaga ttttaatttt gatttttggc 180
 taaagcnttt aaagctcact aatatacnnt ttttnatacc tttattcatt atattgtcaa 240
 tcaagactta taaagtctta taatacaaaa ctgcttgctt agataataat aagaacaata 300
 aaataaagta aacaaagcac gtnatangta gtagtantta agaaaccaaA cgaaanttat 360
 aaantgaagt aaaaaatana aatataantg aaaaaagacg aatatacttt aaataaatan 420
 attataactt tgcgattaaa nttaaatan ttttatatat attaaacaat ggtacagtat 480
 ttatagtaat ctatttAAAA 500

<210> 702
 <211> 494
 <212> DNA
 <213> Ctenocephalides felis

<400> 702
 catggcatcg tgcctaatg caaattgctg gaacttcacg caccgtaatt aaaagggggg 60
 ngaaataaaa ataataata actgttttaa ataatttcag aaagatcatc ttctacatat 120
 ataaaaataa gtcgggtttt ctttcctatc gaaataactc cagaacgcac gaaccgattt 180
 cgacaattta atatttcgct ggaaaggtaa caggctccgc aagggtttata gctaagaaaa 240
 ttagttgtgc atggcatcgt gctttaatgc aagctgctgg aactcccgca cgttaattaa 300
 aaattcgagt aataaaaaata atcaataact gttttaataa atttcagaaa gattatcttc 360
 tacatatata aaaataagtc ggggttttctt tcctgacgaa ataactccag aacgcacgaa 420
 ccgatttcga canttttgta ttccgttgga aaggctcncg gctncgcagg cttatagcta 480
 agaaaaattag ttgt 494

<210> 703

<211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 703
 caataaagaa ttggatttan attattttaca aggtcatttt ctctattcng gngtttgtat 60
 gactccccgt aaacaagatc aagacctcct cgcaggtat atcatgtatt gaagagaacg 120
 tctcaacat tctcgcagca tcttttagtg agactagaga aaatgcaata tcagaaataa 180
 gacatttatt gtaattaaaa tttattaaaa tctatagcat acaaagtatt aaaattaaaa 240
 aagtttgacc agcaatggca tacacattac ataataaaat tgcgttaaaa ctgacaatca 300
 aattaaatca attattcatt agcggagatg aagaactcca cttttttagg ttgaaaact 360
 tcaacacgaa atttgacgag accagtaaag aattcagact ggaaatttgt ttcagtcaaa 420
 cagattttgt agttggcagc attttcaatt tcgtctcatc atccaagaaa tctccatttt 480
 ggaagcacct gtgttgtaa 499

<210> 704
 <211> 376
 <212> DNA
 <213> Ctenocephalides felis

<400> 704
 aagtattgac gaagttaagc acaaattact caaaaatttg ttaagaaaca tattngtttg 60
 taattttatt ccaaagat atacttgga gaataaatt tcaaaattat aattgtttat 120
 cctgcatagt aagtcctgac gagctccaa aatatgacga ttaatatatt acttaaatta 180
 aatatacatc gngctgtcgg caaagttaag tacaaattac tcgaaaattt gttaagaaac 240
 atattttttt gtaattttat ttgaaagta cacacaatga aaaagataat atcaaaactg 300
 taattattta gtctaccgg gacgcctga agagctcctc aaaattcaca agtgcaatat 360
 aacataaatt aatagt 376

<210> 705
 <211> 118
 <212> DNA
 <213> Ctenocephalides felis

<400> 705
 ttctgtataa gtaatttggg tgtaataatg ttcagtgtta acgaacnggg tgagctgcat 60
 gagcaatgct ctaccaact gtaaaactct aaatgttggt aattcgaact acgactgt 118

<210> 706
 <211> 289
 <212> DNA
 <213> Ctenocephalides felis

<400> 706
 taaagnttag tttagattta aattcattta acttgnattt caatgntatt attattgcaa 60

aataaattct tcaataatgn anatcaacaa atttcctttg tgttacaaaa tttgnatgta 120
 ttttttaact ataataagtc ttcaatatTTT ccaaagcagt atgttctaca atgnaagtaa 180
 tttaaaataa gtattggtgn aaaattaaaa taaatgaaat aattaaacaa taaatgcttt 240
 atttttaatt aggaaatcan atcaccagta tcatctctaa gaaaaatgt 289

<210> 707

<211> 202

<212> DNA

<213> Ctenocephalides felis

<400> 707

aaataatatg cgctcgaatt gaaagaaatg cccgcgctcg tccgggattt gaacccggga 60
 cctccccgac cataaccgga aatcataccc ctaaaccaac ttttgattt gccacttacg 120
 tttaatatct aagccgaaat cataacccta gaccaacaag ccacgagttt tatccagtgc 180
 atgtttgtgt tggaaccaat gt 202

<210> 708

<211> 300

<212> DNA

<213> Ctenocephalides felis

<400> 708

ttggtatagc ctttccagaa ttactcatat actngaaat acngnacn gn tgtaaacttc 60
 ttgcaacaaa gcatatatgg aaatatgttt tctctttaa tgactcttta aattggcggt 120
 tgntgaacta tactttatct gctggntgca tactagttag ttttcaacta gttggttcaa 180
 tgcccatcac tagttaaaat catttatgat attgaaaaag attaaaagtt gattatacta 240
 aattattata tagccctcgg ctattttctg gaatatTTT tagtataaag cagcaaaagt 300

<210> 709

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 709

acattgatac tactttgaca tgcggaant nttttctcag tttgttgntc ttttgatngg 60
 gggngtcac aatatTTTact tattaataa ttntgcgcta tatctaaatg tatctttaa 120
 attaatattt tgcaaattag caataactat caatgagtag atctgctcat agtaagtagt 180
 atatatTTTT atatcgaatg ttagtgtaaa tgaccgtttt aaatttacag ttctagaata 240
 ttaaacgagc tttgtgaaca agggtgaaag atcaaaataa catcactttt taaactgtaa 300
 cgttgacaat attatgTTTga aatgatcaaa ttacataaat gagtcagcaa aatttgTTTgc 360
 taatatTTTtg ctcggatttt tttgaagaat ctagtntata tttggtatat atagatatat 420
 agatgtgncg tatacctata tgtgcgtgcg tgtgtgccaa attaacaata tattngccaa 480
 agatatgtat atgccagtct 500

TTTCTT = GCTGGA

<210> 710
 <211> 425
 <212> DNA
 <213> Ctenocephalides felis

<400> 710
 accaaaaatat gggttaattat tatatatattaa attttttttta gttaaataagn ttttgtatgc 60
 gngngnaaac atgcttttggt nggaatgcna aaatagtgaa cacaaagctt cattcngcaa 120
 acaaatagaa gttgtgtatt gacatatctt gatttcatct taccatttac ttaaatgttc 180
 ataataatat ttgcaagata catagcgaaa aaaatcatta gctatagcac aattttcata 240
 agttgttaat tcatgttatt tttattagaa ttcaaatttt atcataataa cacgattaaa 300
 taaaataagc acaatgattt tatcatgtat accaaaatgt cgcttgaagg taatatctac 360
 atcttaaact agaaaccctc attaaaaata taataattag atttagtatt tggtgaaata 420
 gtagt 425

<210> 711
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 711
 cttcgttttac caaaaaatcg ctaattttnt ttttacaac gtcaaaaaac tactcanggg 60
 gntcaaactt tcataaattt tcaaaactaa actacttgct gtaaggccgt aatatttcag 120
 taagttctat aagaccatga tatataaagc caaaaaagta tcacgggctt aaattttttt 180
 tcaacagtta attacaagaa aacaattaca tgaaatcttt aagcgctcat aacttttgaa 240
 cgatttatta taggatattg atgttcccag gtgaaatatt ctaaatcaaa agatctttta 300
 tccagtataa aaagttttta gatacctctt atcgttcgcg agatatacgc caaaaacggg 360
 ttcaaatttt taagtttgaa ttagtttaaac ggctatagct cgaaaaatat tcatgacgta 420
 tatgaatgaa atatgcgtat ttaaaatatg tatctgatgg tgcaaaaagt ttgtaatagc 480
 tctnccgttc cgnatatttt 500

<210> 712
 <211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 712
 ctttgcttca aatatogaag acatatttnt gaagaaaatc ttggcacaca ttgannngnc 60
 nctgcacctc gcatgannnt cacttgaata ctcttgatga aagagtgaga aatagaaata 120
 atcttcttgc aaangttcac tngcatggag aaacctgaaa tgcagtttat agaaatatat 180
 tccacgcagt gaaaccantt gcaocgacta ataaacgcaa cgntttcant tacgaccgca 240
 nttcacaaaa aaccggcgct taaaantata ctaactattt atatgcctng gaacgntctc 300
 gctttaagtg cgaancggca tttatcantt ggggcnctta aatgaaatct taatccagga 360
 taagggtcac taattacgca tggnaacaaa acagcaaatc ggtgacgagc ntaataantt 420
 aaaaaaaaac atnacaaccc ccggtatatg ttaancnaaa aatntanaaa agcctgaaan 480
 ttgggganaa attaaaacc 499

<210> 713
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 713
ntattggcctt agaaagagga anttaaann ttttattact aantatatca attaagangg 60
ggngnnagna ggngtggttag naataaacat tataatcaag gcgtnttgaa ttaaaagctc 120
atattgntag aatgtannaa cgcgcnatac cttttctttt tttagacaaa aatttataac 180
gtaatatant tatnttaaaa atgcaaaaaa tatttaaagc gaaaaataaa caactaactt 240
catatacata tatgtatata taaggatctt gcnagggcaa aataataaag attctgcaat 300
aacaagcata gcttctgttc aataaccgca ttataaatgc cnntttgnta tttattacgc 360
natattagca aaaatcacta tgtgcnnaa nntttcttaa ataattaact ggcgngcttg 420
cttaatatct ataatanntt taacatcaac aataatgnnt anttactnaa gantttctaaa 480
acanttatta gaattatcgt 500

<210> 714
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 714
acgaattaca tttttgttat gtgtagaaag gtgtcaaaca nttcatctct tgatcagaaa 60
tannttttct ttctagtaaa tggatccaaa angngctaag aaagaagann ttcctgagat 120
tataaattct ctgaaaaaaa natacntttc cnttatttat ataataataa ttatttagat 180
atatgggatg acttctagaa aaaattaaag tggtcaggaa tggngncatt gaaagaaatc 240
tttctatcgg tatgntaatt acatcaaaga ttaaacataa ctnccttaact aattcatact 300
cctatcaaaa tatcttttag ggatcgatat actggctctt ttctacngac atgggtatct 360
tggaattga tggaagtaaa ganatggatc taaataatat gggcctcggc cgggacaccc 420
taaccgnatc tgagatatca atacctggcg gcggtcgagc atgcattana nggnccaatc 480
gcctatagng ggcnataca 500

<210> 715
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 715
actcatttta tatattctcg gngggataaa aatataatta attantgtng gccttctacg 60
ggngtgcttt tagaaaaacc aaaatctggt gggggggctt tttgaccnc cnttttgagg 120
ctttaaattt aattctttat tattatggaa aanataggtg gttnaaatca tgggnttaga 180
caacatoggc ggttcattta agtatattat acattttggn ccatcgcaen gatncagtga 240
ttaaaaaata cagtcacgct ttacaattaa atatcgcgag gtcgctaaaa ataaagccaa 300
caaagctcta cgtgaatgaa aagncgggac ctgagaagcc gcntttaagc ttggaagcgc 360

gctggagtta ctgggattgg accactacac ttaaagacac attgggaatc caagtagtcc 420
ccattagcta aacncttcaa aatgctacta taatggtgga nggtangctt ggctnggcgg 480
gacnccttag cgatntnnga 500

<210> 716
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 716
actaaatgaa ttacaaatta tccgtatata tttanggaat attttacata tatggacang 60
tggggnttgg aagcttattt ttgntnttaa tattaactct tttatttaca actgtccagt 120
aaaggacatt tagtaaatth aagnnnttac aatagtcgag cgagaaggga cattgtatac 180
tacattgtca tgttggaata aacaactcag tantcgncct tcctttctat ataaaattca 240
caatanttta ttattgaata attacttata aataatgatt aagttatttc tattnttttt 300
ctcaggagag ttgatagctt acatccattg ggcgttaata aatgataaaa atgnataatc 360
anttgatgaa ataacttcat acaattatta ttacannntt taatggaagc ttaatgaatg 420
ataaaaanta taataaantg atgaaatact tcatacnata ttattacaac cncctttattt 480
cattctacac tgggacgaac 500

<210> 717
<211> 363
<212> DNA
<213> Ctenocephalides felis

<400> 717
tatttatgt attaaatgaa accttttntt tnatacctan ntttagnggc aaatgggggg 60
nttngaaata aaaaggcttt ctataaatct atcgtaattg ggtcatcatg aaaaaaatt 120
gattccatat atactacnac caantcgant ngcaatattc acatatagct ttcgatatgt 180
ccaaacaatc gaacatatat aatatttant tcatatttag gtgatttaat tatnggtaaa 240
aagggtgtgg catgtttgaa gagatatgta tatcgctata caattaaata tccacattat 300
tatataaata taattttttg ngcttattta tctttatcac tttcagcttt ctttccaatt 360
ggn 363

<210> 718
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 718
ggncanttta ttntcatttt tatggataag ntttntgaaa taaatagtca acagaaccnn 60
gggngnagnt annncttta ttgcttgga atctatctat acaatagatt taaatanntt 120
agttccngnt tataangtaa cngcngncc gncttcaaaa atatagaata anttcgataa 180
ggactagcgn ttgtcanntt tgcacaacaa tcagccatct cngtaaatat ccgaaaagga 240
aaaaaangnn cgtctacgcn tnagcccaca nttctanac gatttttaaaa atacaaaacc 300

gttcgaaaga tattgggtgg gaatganatt gattancctt cngnaaanat ctcttttatt 360
gacagnttct tgngaataac tggcaaaaaa acncttgacg acnttatgaa actcctttcg 420
aananatatt ataggctcaa tggatatcta aaatanaggg cctcacanac ggttgcttaa 480
aantataaaa ggggaaaant 500

<210> 719

<211> 353

<212> DNA

<213> Ctenocephalides felis

<400> 719

aaacagaaaa atatcaaacc ttcatntnt ttcaatacat anttatctac aagngnnggg 60
gggngagggg nngngactac tacaatacca tcactttttg cttttaattt tattccaant 120
acatactang agcngncttc nncgncctcaa tgcctcattg aatccttcgc acaaagttaa 180
atcagatcgn ccttggtgcgc attgnaagaa ttgcatgatt ncccatgcgc aagggccagt 240
agagttcttg gccttggttaa gcagnacttg cgnangcant ngntgagggg cttggggcagg 300
tgctgcttca ctggaggaac caccagagaa gaaccagtta taccggnntc tac 353

<210> 720

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 720

aaaaagtcca gaacttccaa aatttttttna aataaaacct tcttcaaaan gcngggggggg 60
gaagaaaagt aangggggnc tcaaaaatct ancntttttc gaactaatan ttgcagaaga 120
ttcggcagca ttcacggccc ngcccncanc ctttcagacc aaaactgngt tcattactaa 180
aacantnatg nancttcacc atgttcaatt attctgaaaa tanttatgca ataaagaact 240
gcanttcac cagattctat tacaatcagc tgctcctcgt ggaatctcaa taccataann 300
cttatgnggc agaatgaagc gcgctcgnan ataaatgaan ttacggccgg tatttacaan 360
tttaactcga cantaattaa aacggattca tgtnccgaga aacttggaat cttacatata 420
aanagcggnn ctgngtttat ttcgactctt aagnaacntc attgcgctaa ccctagagag 480
anatttatgg tgactnaana 500

<210> 721

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 721

actttgaaaa tttccaactt atttcatttc ttgnggcata gttatcaaca gagagacttt 60
ctgggagaaa gagccgctcg gggcacgcag ctgttttcgc tgcttgatat tttctacatt 120
gtttgagtct cttatttcat taacaagcga gttcttcaaa ggaaattttc gcagcttgca 180
caattatatg atgtctcaac acacgacagt caataatctt cttgaaatta ttaacactat 240
tctatcaacc gaaaatatat atttatacat aatattatat gacatgatat aggaaaaaga 300

atttttaaat attttttcta atatagagta ggacggtgca caattcgaac ttaaggaact 360
 acatgacaac acataacatg tatcaaaacta tctactatcg aactgtgttc aataaaatgt 420
 ttagttaatt tctaattata tcctttcata ctatttttct aaaatttatc atctgtcatt 480
 tttatcacat aggctgagta 500

<210> 722
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 722
 acatcaattt gtcgctccaa cgagcaaata cnnacaagcc agcagtagac tcaatagaat 60
 gtcgagtgat ttcagatata atacactttt gattgatttc caatagaatc caggtcgaac 120
 attttgcaaa acaccattca atagaatttt gaattcggtt gccatcgagc caataatgag 180
 ttcgctgatt ttgttttaaat tatcgacgtt attgaggaat gttaagactg ttgacaaatg 240
 tgattagaat cttaactgat atatagttaa actatatoga atattcatac tatttgtata 300
 gacagtgatg tgctgacacc caggatttca cgaattttta ttgtaaattt aagttgccaa 360
 atatgcattt ttgtgggttaa ttttgagggt aattttattgc ttttgtttct atgcagagac 420
 aagaataaaa tgattcaaag cgtaaacacc aataaaatgc tactatatatc ttacttgat 480
 attottattt ctattattgc 500

<210> 723
 <211> 151
 <212> DNA
 <213> Ctenocephalides felis

<400> 723
 acaagtgtta ataagagcac gtttgatgga tcnactgggt aatagaaatg ttcgtgaaaa 60
 tgtaaatgtt tactaataaa tatatatattt actaatgcaa aacaaaatta tactaataaa 120
 aaaataactt atgtatcact tgatataaag t 151

<210> 724
 <211> 167
 <212> DNA
 <213> Ctenocephalides felis

<400> 724
 acgcattgtc taaattgtaa taaaaatggt ntttaataga attgttttct tagacagaca 60
 ttttaaatgt atttcgaaaa tattactgtc acatgtgaat ctgtgaaatg tgtcggtttc 120
 attgccaaag tcacatgtaa tgtttgatac atttacagat tcctagt 167

<210> 725
 <211> 381
 <212> DNA

<213> Ctenocephalides felis

<400> 725

acaaccgttg gcaaatatca acttccacat catnaccaaa tgttttatcc caatcaggcg 60
atgaatccaa atgattgaat tcattacact gttcaggctg agtgtaaaat aatgatgttg 120
gactttgagg cggagtataa tgatttagtt ccactttatc ataaatgcgt tcaaattctc 180
gtaaaagact ctcaagtgtc tggtgaataa aatctgtggt atcaaattgc tgaggaaatt 240
tggtttctcc gcttagagtt ttgttcatac cagttgtagt agacaaatcc tccagcagag 300
gcaaattccac tttctcctcc agccattgag aaaatgcttc attagtaaag ttatcttcca 360
gcaagcacga atcagcaaag t 381

<210> 726

<211> 424

<212> DNA

<213> Ctenocephalides felis

<400> 726

acaaaattta tattataatt caaataaatt taaaaaata ataacttgaa cttttatatg 60
agcaatccca tgttggaatt atgttgcaac tatttgaaag aaggcagcta aattaagtta 120
agttaattga agtttggaat tacgttgaat ataattttaa taccttttaa gacaaaacgg 180
aaactttcac atgaaacatg cttaaactgag taaaggactt gtaagtcctc tgagaagtgc 240
aagcagcctt tacaataaac taccagacga actaaaaaca atgacagacc taaacagttt 300
caaaattaaa ttgaaaaatt acataagaga caaatgaaac aaatgagtta aaatccctat 360
tttaaatcta tattantnt gntntgtaaa atattaatca caattnagta tnagttgtat 420
gntg 424

<210> 727

<211> 488

<212> DNA

<213> Ctenocephalides felis

<400> 727

acatacatat acatacacag acatccattt ttntgatgta tgccaaaatg ttcagaaacc 60
ttcaaaacaa aaaaagatcc tgaaaaatta tgaggaaaat cacacccaac aaattgatct 120
tttttatgat ttcaaaaatt aataatacaa tattaaatta tacactacct aacttatgtt 180
ttaattaagt atattttgtt ataggtaggt aatagttttc gatctttgac ctaaaataat 240
ttttgaatat ataaaaatta tagaacatat gtgtaaatct tttaaaattt tgaagacttt 300
tttaataaat cgcaaaaaag tggatattaa atttagttta taatctttta gttcttggtc 360
gaatgttaaa ttaaattttg gcaaaagtta gtttccaagt catttttatt atttattaat 420
gaaacaatat tagctttttt ggtaagaaaa tcggcacttt ttggtagggtc aacatttatt 480
cttgtgag 488

<210> 728

<211> 290

<212> DNA

<213> Ctenocephalides felis

<400> 728

acttttcatg atttaattgt atattaocott antaactaat ataaatatat ttattagggc 60
gggtcaattt aaaggctact taggcacttg tgattttcgg attctaggga tcaaaataag 120
atactttgct gaagaaacca cacctctaaa atgaattctg atgtccgggtg cattgactca 180
ataagggttt aattttgaaa aacctctcag ggggggtccc agggtttgaa ccagaggcat 240
gagttgattg gccttctaaa gttagtcata catttggaag caattgggggt 290

<210> 729

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 729

accgaactat acataatcca agaataacac anagaaaaat ggcagaaatt ttccaagtca 60
tngttcaaac tgtttccatt tacaaacaat ttgaagatat atcaaaataa ggttgacaat 120
atctgacaat gagtgccatt atctgttttt tattgatttt ttgcagtgtt ttattttctga 180
tcaaagggtt aaaaaagttt atcttgagaa tcttgttott atactagcac gttgtagaca 240
aagtaaatat ttcattttta ttttaacaata ttaaacctgt gagataagcc aattaaaaac 300
tgctcatata gataatttat gatttcacgt ttttaacaagt ttaaccaatc tattcgaaat 360
caataatacc tttaaatgta aaaaaatata aaacaaagaa atgtaactgg cttgatttat 420
ttgctaaaaa cagctgataa acggcaaaat tcttcgaatt tgcacttgat ctatataaaa 480
atatttcggt tttagcaata 500

<210> 730

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 730

acttcaagta taaccaacg attcacttcc cntgtgtcac tttggcataa atatccccta 60
aaatatgtaa aacaggaacc agggcaccgt gataatgtaa tcaaacgccg gaaaatgatt 120
tttgatcgta tccatacctt tatagcgaag tcgggaatcc ttgtgattat attttcctaa 180
aaaaggaaaag aagttctcgc atactgaaaa gaaaagtttt gtctgggtggc ccgatttcga 240
actttcaaac ttattcattc ggttaccgog accgcgaatg aaatattatg atttttcttg 300
ctcttgctcg gaataagata gattgacttc gaatattacc ggaatataag ctggctgcga 360
gtaaattggt tggatttgtg gcttttantt atcgataaaa tatngcctn ttngagnatn 420
gttggaanct cnnggtant nttcagggtcc catggntacc nttagnctaa ttattaattt 480
ngtagnncca ccaaaccatn 500

<210> 731

<211> 256

<212> DNA

<213> Ctenocephalides felis

Variable	Mean	SD	Min	Max
Age (years)	38.5	12.5	18	65
Gender (Male/Female)	55/45			
Marital status (Married/Single)	65/35			
Education level (High school/College/Graduate)	35/45/20			
Occupation (Manager/Professional/Service)	25/40/35			
Income (USD/month)	1200	300	500	2500
Health status (Good/Fair/Poor)	60/30/10			
Smoking status (Smoker/Non-smoker)	30/70			
Alcohol consumption (Regular/Occasional/None)	20/40/40			
Exercise frequency (Daily/Weekly/Monthly/None)	10/30/40/20			
Stress level (Low/Medium/High)	30/40/30			
Sleep quality (Good/Fair/Poor)	40/30/30			
Dietary habits (Balanced/Unbalanced)	50/50			
Family size (1-3/4-5/6+)	30/40/30			
Work-life balance (Good/Fair/Poor)	30/40/30			
Health insurance (Yes/No)	90/10			
Access to healthcare (Easy/Difficult)	60/40			
Healthcare costs (Low/Medium/High)	30/40/30			
Healthcare satisfaction (Satisfied/Dissatisfied)	50/50			
Healthcare accessibility (Good/Fair/Poor)	40/30/30			
Healthcare quality (Good/Fair/Poor)	30/40/30			
Healthcare affordability (Affordable/Unaffordable)	40/60			
Healthcare transparency (Transparent/Not transparent)	50/50			
Healthcare accountability (Accountable/Not accountable)	40/60			
Healthcare responsiveness (Responsive/Not responsive)	30/70			
Healthcare communication (Effective/Ineffective)	40/60			
Healthcare patient participation (Active/Passive)	30/70			
Healthcare patient education (Good/Fair/Poor)	40/30/30			
Healthcare patient empowerment (Empowered/Not empowered)	30/70			
Healthcare patient satisfaction (Satisfied/Dissatisfied)	50/50			
Healthcare patient loyalty (Loyal/Not loyal)	40/60			
Healthcare patient advocacy (Active/Passive)	30/70			
Healthcare patient engagement (Engaged/Not engaged)	40/60			
Healthcare patient involvement (Involved/Not involved)	30/70			
Healthcare patient participation in decision making (Participates/Does not participate)	40/60			
Healthcare patient participation in care planning (Participates/Does not participate)	30/70			
Healthcare patient participation in health promotion (Participates/Does not participate)	40/60			
Healthcare patient participation in health education (Participates/Does not participate)	30/70			
Healthcare patient participation in health screening (Participates/Does not participate)	40/60			
Healthcare patient participation in health assessment (Participates/Does not participate)	30/70			
Healthcare patient participation in health monitoring (Participates/Does not participate)	40/60			
Healthcare patient participation in health evaluation (Participates/Does not participate)	30/70			
Healthcare patient participation in health improvement (Participates/Does not participate)	40/60			
Healthcare patient participation in health research (Participates/Does not participate)	30/70			
Healthcare patient participation in health innovation (Participates/Does not participate)	40/60			
Healthcare patient participation in health development (Participates/Does not participate)	30/70			
Healthcare patient participation in health implementation (Participates/Does not participate)	40/60			
Healthcare patient participation in health evaluation (Participates/Does not participate)	30/70			
Healthcare patient participation in health improvement (Participates/Does not participate)	40/60			
Healthcare patient participation in health research (Participates/Does not participate)	30/70			
Healthcare patient participation in health innovation (Participates/Does not participate)	40/60			
Healthcare patient participation in health development (Participates/Does not participate)	30/70			
Healthcare patient participation in health implementation (Participates/Does not participate)	40/60			
Healthcare patient participation in health evaluation (Participates/Does not participate)	30/70			
Healthcare patient participation in health improvement (Participates/Does not participate)	40/60			
Healthcare patient participation in health research (Participates/Does not participate)	30/70			
Healthcare patient participation in health innovation (Participates/Does not participate)	40/60			
Healthcare patient participation in health development (Participates/Does not participate)	30/70			
Healthcare patient participation in health implementation (Participates/Does not participate)	40/60			
Healthcare patient participation in health evaluation (Participates/Does not participate)	30/70			
Healthcare patient participation in health improvement (Participates/Does not participate)	40/60			
Healthcare patient participation in health research (Participates/Does not participate)	30/70			
Healthcare patient participation in health innovation (Participates/Does not participate)	40/60			
Healthcare patient participation in health development (Participates/Does not participate)	30/70			
Healthcare patient participation in health implementation (Participates/Does not participate)	40/60			
Healthcare patient participation in health evaluation (Participates/Does not participate)	30/70			
Healthcare patient participation in health improvement (Participates/Does not participate)	40/60			
Healthcare patient participation in health research (Participates/Does not participate)	30/70			
Healthcare patient participation in health innovation (Participates/Does not participate)	40/60			
Healthcare patient participation in health development (Participates/Does not participate)	30/70			
Healthcare patient participation in health implementation (Participates/Does not participate)	40/60			
Healthcare patient participation in health evaluation (Participates/Does not participate)	30/70			
Healthcare patient participation in health improvement (Participates/Does not participate)	40/60			
Healthcare patient participation in health research (Participates/Does not participate)	30/70			
Healthcare patient participation in health innovation (Participates/Does not participate)	40/60			
Healthcare patient participation in health development (Participates/Does not participate)	30/70			
Healthcare patient participation in health implementation (Participates/Does not participate)	40/60			
Healthcare patient participation in health evaluation (Participates/Does not participate)	30/7			

<400> 734

actcttccca cagtgcgaga aaaagtttaa gttctattca tcggtcgtct aaggaaacca 60
ctcatcagca gattgaaact caatctaattg cacgaaataa acaccaagta tcatcatcta 120
acgctaccta cgttattgaa cgccgcgaga aaaccgttcg acgcgataat ctgttaactg 180
gcggtgaatt ttatgggtcaa aaagattcaa ggtatggtaa tttttctaatt tgtgaacaaa 240
gtctaagaag t 251

<210> 735

<211> 229

<212> DNA

<213> Ctenocephalides felis

<400> 735

accagtgtta tggttatgggt atgttatacc gtttaaaaga cttcaatttc caatatagtg 60
ggagaattga gactcatcat ttataaaagc aattctgcat ttagcatccc ttatattata 120
aatatatatg tattttgggtg taaagagtaa tttaaaaaac aataatcaat attttttaggt 180
aaacgataaa tatttagtata ttacattata ttaaaaaaat gtagagggt 229

<210> 736

<211> 333

<212> DNA

<213> Ctenocephalides felis

<400> 736

acatacgagt atactaataa aatagatttt agaactaata gaatcttatt gcgatatata 60
tgtgtgattt tcattataat gcataaaactt tggtataaac gagcatagtc atttagatag 120
tattcgtcat ataatcaaat ttcttctgaa aattgtctta agcgattcct ccccttaaca 180
agcgaaagt ctcgaacgaa attactactt caaaacaaat ttaaaagata aggcataatag 240
tcgcagaagt tcgacaatga aaggtagatg aaatagaaat gatataggga aattaataaa 300
atcattaagt aatctttaaa ggtgacatt tgt 333

<210> 737

<211> 197

<212> DNA

<213> Ctenocephalides felis

<400> 737

acttctcaca tgcaaagcga gcgctctacc aatagagcta cgcccccgac aagtgcacac 60
atatttattcc aagattctac gggttttata cttaacaatc actcacatta acatcacgaa 120
gacatgaaaa agtaagattt ggaagttacc aagatataaa atagtaatat ttggaagcac 180
cgggatatcga tcccgggt 197

<210> 738

<211> 354

<212> DNA

<213> Ctenocephalides felis

<400> 738

```
acagaccttg agatacgggg gcaattcttc ggcttgaata atactgaaaa acgtcacaaa 60
cgttaaaatc actacaatat tcgtgatcgc cataacgatg ttgtttctgg atgtgtctgg 120
aagtcaaagt gcgtgatttg aatttttgtt gcgatttttg ttctgtatcc ttagataaaa 180
tctgcgccct tgaccgtaat gccaaattca agatgataaa ggacaaagat gtaagtcgaa 240
attatcactt ctagagcact tgacatccag ataaacaatg acaggcctgg aaagaatcgc 300
ggtttactta tatgagaagg atgcgtggct gatgtgtcac cttgtccttg gttg      354
```

<210> 739

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 739

```
actcttgaaa gtaatgataa agtatcagtg agaaaaataa aaacacagca atcaatatta 60
agttacaagt gcaaattgaa gcctgaaatt agctgaccag tattgaaaat agggctcata 120
attttatgtc aagtcagtta agagaacaca taatctatta aataaaataa aattcaaaat 180
aaagggttaa ttccaccctt cttttaacac tgctaattgtt agtttgggat cgactaatcc 240
acaacaaaag tttatgagta gcaaaaattg ctttttgata tttcacgaag aaaacatatc 300
taataataat tgtgcgtata gtttctaaag ctaaatacca tattctgtaa tcatgtatgt 360
aatatataaa aatattgttt tttaaaaacc attttttttt aattttgaat tcgaacgatc 420
tatataatca tagataaaca agtataaata ttggtgtttt ttcagaattt tatatttgcc 480
ccacggtcga cgctagcgcc      500
```

<210> 740

<211> 293

<212> DNA

<213> Ctenocephalides felis

<400> 740

```
accaatattt ttactcaaac ccatgaatga aatcaaagaa attttcaagg acaaagaatc 60
tgacatacga agatcaatca gcccaaacc acaaactata gaaagttaat tatacaataa 120
tcaaaattta aaaaaaatta taggtataat tgaaacatgt gtcacactt atgatcgtta 180
agcacaatcg accaaagaaa ttatgtgtaa tttgtattta aactaaactg tatttaatat 240
atgttgtaat tacgaaactt attatacttt ctagtcaaat ctaaacatgt tgt      293
```

<210> 741

<211> 124

<212> DNA

<213> Ctenocephalides felis

<400> 741

actggtggag ctttcgtttt ggtcttgttt ttactttttt ttataatatc atcgaaagcg 60
 ctggacgctc cattctctta aaaactcaaa aactaaattg ccctttttgc tctttttccc 120
 ccgt 124

<210> 742
 <211> 278
 <212> DNA
 <213> Ctenocephalides felis

<400> 742
 accagatcta agttattttac agtgtaatct ctgtaaaaaa tgcacccatg aagtttatat 60
 cttgaatgta agttgaataa tgtagctatt atttgtaaaa tcccttttaa attaaaaata 120
 agacttggtt ttccatgtct tttatcaaaa atgtttcaat attgataaaa ataatgttaa 180
 ataatcagag tcatataaaa tgagtttcta gttttcttct taagatcttg aagggttttaa 240
 taaaattttt aaaaaattat gcgcttttta atctgtgt 278

<210> 743
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 743
 accatcactc catgagttcg acaaccaact agaaaagacc catcaaccaa ttgaaaataa 60
 attctaacia ataaaaaaat attaatattat aaataaaaata ttacctgccc tttttccata 120
 ggctaaactt atttcgttta aaaaatcttg cactgttttc ttaacaccat cacttgtaaa 180
 aggtgttatg agcctttgca gatatgagcc atcctaaaaa taagatcatt tatttaacia 240
 attttattta gggagcattc tagtctagga gtcaattttc aactttctga aggagttggt 300
 tgttttctcg aaaaaatccg atttgccaat tttatttttt ctcaacgttt caagtcattc 360
 tgaatcaatt gagaccaaatt ttgaaaaaat atgtgtatgt tttcatgtat gtgagccgat 420
 ttttcgtttc gttttctcaa aaacgggttg accgatttta aactagtggg gcatggcatc 480
 ggccttatgg caaattgctt 500

<210> 744
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 744
 accagtntgt gagatnaata aactctagcg tntttcgaga atatnngcta tgatctttgn 60
 ggggtaatnn actngtttaa taatnnctta tgcattacaa atgttaaaat gaaattatta 120
 tgtntattta ataagataca tanaagcaat ttatcttana aatttataa ctantctact 180
 aaatactgaa atatgaattt cctantctta agattttact aaatcactga tntctgaatt 240
 gaaatattcg ctgaaaagtn attataatgg acattttcac gtancaaang tatttaatca 300
 gtaattcttg aacattctca tttngcgtat atatttcato tataatantt acaaaaaaat 360
 atttacacat gccataaaat gaatgctcca atantcattt ttatatcncc tatntaatcc 420

ntgtgtaact ttatggcoct tcatttgtat tatttttttaa catgcaattt naaatcataa 480
nacttgtgtt nataattnat 500

<210> 745
<211> 464
<212> DNA
<213> Ctenocephalides felis

<400> 745
acattattgt atgaaaagca aattttat tgaactgttt gagttgatcc acagatttca 60
ataaaacttt gtaatcaaat taaatttagtc agcaaaactta gcaattaaaa aattaaaaata 120
aataaatttta ttaataactaa attttatgaa atttcacata atttttggga tttatataat 180
gtggtatatt catatgaaat gattaacaga catgaccaac gattatttga tcacagaaaa 240
gcccagttta gaatttcatt tatggacaat taaaaaagtt tttttttaat tttttatctg 300
ttattttatt taagattagt aatatgtaat gcaatcattt gaaattaata ttctttatat 360
tactaataag agataactta tatgctcata caaaacaatt tatctgttta acattttatt 420
caaaaaacgt aattaatgta aaatttttaa caaattgaga cttg 464

<210> 746
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 746
acagttgacg ttaatgaaat acctgcatat gaaaaaatga tccagctatt gtaggtaata 60
ttacattagg taaaaaacta gacaatttac caaaggttct caactttaac ttctgtctgt 120
aatgattatt caaataaaaa cctgcaaggc cacaacaaaa tcctgaaact gctgcaccgt 180
atcgagaggg taatctggaa aatataattt gatgttgaac atcatatcat ttattagcat 240
tagatattat cattacactt ttgactgttc ttcccaattc catatttaact tccactgata 300
ttggagagct tcgtcctcag ttagtogaat agcatctttt ggtggttcac ctttagacct 360
tactaatgcc attatattat atgaaattta ctgctttatt cataaatcat ttgtgatttt 420
acattagttt cccagtttaa agttaagcaa acaaatatat ttataccata agttttatgg 480
tactactttc aattttgata 500

<210> 747
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 747
actttttaa tttttgttat ctaatttttc acattgtaat tcatgttgcc tgagtctctt 60
ttctaagttc tggcaggtct ggccaatata agagcaatta caatccaaac aattttacttt 120
ataaactata tttttctttt ttgttaattg ggtttcatct ttaatttttg aatataaaaa 180
ttttaattgt ttttaattgg aaaaagtaac acgaatattg tgttttttga aaagtctttt 240
tgataattgg ttaaaattat tgtcaagata tgggaaatta atgaaaaaag ttttttcagg 300

aacacttggt ttgccaggct cttccggttt cttatcaaaa ggttcaagta attttgcgac 360
tctattttta ataattggac aaattaactt atatggaaaa ttattgcaa gtaggatcgt 420
tttaactaat tttatgtttg tatcataaaa cagaggatca gataataaaa tagcgtgatc 480
tcaagattag aatggtagaa 500

<210> 748

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 748

actggttggt attgcttgaa tcgagaagtt aagaaaagca acttttgtat gaatttcagg 60
actggttctc cogtcagcag ctggtcatgc tggtcctggt catcaacatc tcgctagcca 120
taatgttctt caagttgctg acgtagcggc ggccatatcca caacggccct ttgtggccgc 180
catgatcaca ggcataggtt cattacagtc gtaagggaat aaatcaaata gactttatta 240
acgaccagca catgtgacgc acagccgcgg cactgttggc aataatataa tcacaacaaa 300
aaataaatgc aagaaaatca caaaaaagat tctagaatcg atcgaattct tcaaatcgga 360
agaaacgaat tcgccacgaa accgcgtgac tttggttttt catttttttg gcacgcaatg 420
gctgaaaggt atcggatgcg tccagataaa tttgtcagtg ggcgttttca gtttctagtc 480
aatcgctgc aggaaaagct 500

<210> 749

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 749

acaccaggt ttgaaccggg gatcactaga tctgcagtcg aatattctac cattaaatta 60
tgtccccttg atcggtgaca ctcggaat agcaaatact ggcaccacat cacatttact 120
cagcaaatag ttaaaaaatt tgtaatactc ttaaagcaaa tagcaaacgg tagcggtaaa 180
tcaaattata tcagctacca atgtttttta taaattcaaa gtctcattta ctctacaaac 240
atcgtaata gcgaaccctt gggtttgaac cgggttaata gtgcacacgc gggattgaac 300
cggggacctc tcgatctgca gtcggatgct ctaacactga gctatgtcct cacaatgtgt 360
gttactcagc acatagcaaa tacctacgcc acaccacatt ttctcagcaa gtagcgaaaa 420
ttcagcaata atcttaaagc aattagcaaa cggcagcggg atatcaatgg caagttgacg 480
ttatttacac tgatttcagt 500

<210> 750

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 750

acacggcttt gtagtagtcg taaaagaatt ccgggtcgaa gcgacagaag ttcctttcat 60
tggtccccgt aatttctcaa aacgcccttt tccatctct cctgtatact ttttgaatgc 120

gtgcagcagc agcaggggtcg aagggttattt ctgcattcct cctacggcgt cgtctctgat 180
 tggatttggg tctgcatgtg cgactagtct cgttccgagt ttcaacgttt tctttcggct 240
 tgattgattt ggtaggtct tcgatctctt tcggccaggt gtattaatag cctcaattct 300
 ccggcaggac ttgacctgga attttgtcag ttttgagca agcagtgaag gcgtagggat 360
 agttcttttg attgttgttt gttcgtgcac gtcttctcct cgcgatggag tcttgcttgg 420
 ccggaagtgt gtttcttctg tatggttctt aaatcgcgca ggcgttctgc aatttccctc 480
 tcatttcatt cacattcaac 500

<210> 751

<211> 423

<212> DNA

<213> Ctenocephalides felis

<400> 751

acgtatttca gaccgttcaa tccgggcggt gtctcgtctt acagcaaagt aatgagcttc 60
 tgtcccaatt tgcattacca taatggtatt cttttttaa atcggaaaga agaattattca 120
 agaatccttc attgtatatg caaacaacaa taaatgttgc tatttcaatt acccgagatc 180
 gggaatgaat atgtttcggc gcgaaaatcc aaatcaacga gtttagagac tcattattgt 240
 tctgagtttc tgagcctaaa catcgaatta ataatttatt tgacgataaa ctgtcataaa 300
 ttggtctaata gacttcctaa tgccatttgt tctatttagac cttgcaaaac cagtttttgg 360
 agaccgcgtc agtaaagtgc ctatatcttt gaagataatt caaattttca aaaatcttct 420
 cgt 423

<210> 752

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 752

acttatatat ctattttaagc acggaactta tatacgactg aaattcagat tcaaataga 60
 atctcgtctt acatatttat atttatatta ataattaata tgtttcagtg aaatgttttt 120
 gattttttctc tagttgtgtg aacacgaaaa ttttaattt tatgctttat tgtgtgtaga 180
 tgctctgtca ctttcaattt gcaattttga agatttagaa atatagaaga tggaacatgg 240
 tttttgtagt tgggtggttt taaatataaa agcattgtta actttccggt atagtaatga 300
 accaaaaatt aaaattgaaa atgtttgcat ttctagatgt tttgaagggt tctgaacatt 360
 ttggcacacc tcagaaaaaa ggatgtgtgt gtgtgttttg tatgtgaatt tttcccacg 420
 ttttcgggcg catggatcaa cctattttaa tggtaaaaaa aattcgattc ctattgatag 480
 gacatgtgct gattcttttg 500

<210> 753

<211> 185

<212> DNA

<213> Ctenocephalides felis

<400> 753

actataggga ataaataaat ggcagctttt tccttaggtc gccttttcaa cgtccggatt 60
 ttcattgtttc gaattataca tggcgctatg tatattccat actgcatgct cgcgagctct 120
 ttaataaaat attagtgttg gcacgttgca caagattgga ttcgatttga cacagcggca 180
 gttgt 185

<210> 754

<211> 376

<212> DNA

<213> Ctenocephalides felis

<400> 754

actagatggt catgaggaat atttagcgta aaggctgggt cggatatatt tgaataatca 60
 tccatatcta tcatattagt atagtcggtg cattcgaaat ttatttcggg tgttttgtaa 120
 tctctcaatt gcgtcaggtc ttccacatta ttacggtaat ataagatttt tcttatagct 180
 gaatctcgtg tttccttttt attatcaaac aacattgcta ataaaatatt ttccgagtga 240
 gcatagtatg cgttttcttt agcaacattg ttcacaattt gtcttaaatt cgagtctaaa 300
 tattgcgtcc agctaataaa tttataaaat aatatactac catacaccac agagttgtaa 360
 tatttaatgt taaagt 376

<210> 755

<211> 492

<212> DNA

<213> Ctenocephalides felis

<400> 755

acttttacta atattatgat cataagctcc actttcacga tcttctgcaa gggtnattcg 60
 actgcaaggg tcgaattaca taatgggaag agcttaggta aaaaaataaa tataagtctg 120
 ttacttatgt ataaagtata aaatttttat atttctatga agttaacaat ttagaaatta 180
 acttactttt tatgaaataa gctattttctt tcaattaaac taaggctttt tgtgcaatac 240
 ttttaataca atgttatttt ttttaatat attatgcagcca gttttgtaaa ttctcctaatt 300
 caaaagaaac cgcctcttgc tatggatatc gaaaacttta attgagaaac taaaaactaa 360
 agaaactaaa atatgcttca aagtaattaa agaagttttt tggtttatga aaaagtttat 420
 aattatttat ttagaagttt atgaaaattc atataagcta ataagtaaag caaactaaat 480
 attattcgaa tg 492

<210> 756

<211> 360

<212> DNA

<213> Ctenocephalides felis

<400> 756

accaggtgag aaatggtcga cttacttaag aaagccttag agtaattagg ttaatgnata 60
 ccaattgaaa agtagcttac cataacattg ntgcattttt tgaaataata agcgcgtttt 120
 atttaatat gtttttttaa aagaaatgct aaaagcttta tgtaaggaat gtattgcca 180
 aaaataccaa atgaaatcta gtcaacattt tattatatca aatcattcat aattaactta 240

gtattcagac atgacaattg agctttgatt attgtaagct tttctacagg ctaatatatt 300
 attttaatat aattatTTTT gttgcttgat tatcttattg gtgatggatt aagtttttgt 360

<210> 757
 <211> 207
 <212> DNA
 <213> Ctenocephalides felis

<400> 757
 acaaatgcaa cggaagtgcg ttacggccga actgtaagtc attcgctctc gatgaactca 60
 ttttaatacg ggtcgattgt gattagtcgt cgtgtatgtg aatagagatc tgtcgttgta 120
 tgcgtaccgg cgtcaacgtt gtatgctgac cgatatcaac aagaaaatcg gcatggataa 180
 ataaatattt taaagttaca tcgtagt 207

<210> 758
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 758
 caaaaattga aaaaaatata tacaaatggn tacatatatt tgaaattgtc tagaaangng 60
 taaaatatgt agaaatctaa aaatatctaa aaatccatag aagagtctac gtataaaaat 120
 cattctcacg aatacaattt acctgccaat gttgtcgtgt atcgtatatatt tttctgatcc 180
 aatcttgaca aatgtttcaa gattgaggtc agatttttta taaaaaatca ttataaatta 240
 tttcttttcc acccctattt atgacatttt tgaagaactg acaaaaactca attttaaacg 300
 ttctatgttt tttatttttt gagaggagca aaggaaattc ttcattcttcc tacaaaaaaa 360
 aacaataaaa ataatagaag tgatactctg caaaagaaga aaaactttgt tatgtgaaaa 420
 tgagattgca gtgcttgagg gcagtctgca agacctttaa agactatgca acactttcaa 480
 acagtctaca atgttctaata 500

<210> 759
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 759
 acgtctattt agcaggctag agtctcgttc gttatcagaa ttaaccagac aaatcactcc 60
 accaactaag aacagccatg caccaccacc caccgaatca agaaagagct ctcaatctgt 120
 caatccttcc ggtgtctgga cctggtgagg tttcccggtg tgagtcaaata taagccgcag 180
 gctccactcc ttgtagtgcc cttccgtaaa ttccctttaag tttcagcttt gcaaccatac 240
 ttcccccgga acccaaaagc tttggtttcc cggaagctgc ccgccgagtc atcggaggaa 300
 cttcggcgga tcgctagctg gcacgtttaa tggtagaac tagggcggtg tctgatcgcc 360
 ttogaacctc taactttcgt tcttgattga tgaaaacaca tttggcaaata gctttcgctt 420
 ctgtccgtct tgcgacgac caagaatttc acctctaacg tcgcaataacg aatgccccca 480
 gttgtcctat taatcattac 500

<210> 760
 <211> 338
 <212> DNA
 <213> Ctenocephalides felis

<400> 760
 acaatatattt ttcaaaaggg tcataaaagt gttcgtttta aataggtatt ttattatgtg 60
 tnatataact ttgataaaat ttcaaacgcg tatttatata tcagcgtttg cgtatccacc 120
 ttaatttcaa ttttaattttc atcggttgat tatactgaat ataataaaga ttttgtgttt 180
 attataattt aagtataaaa ttgtagacaa taatattcta cgattcaaaa atctataaca 240
 cataattgat ttaatttttag tttaaactat aaaaaagggg aaaaactcac gatttatatt 300
 tcttctagta agtgtaagct tagatatgtt gcttttgt 338

<210> 761
 <211> 348
 <212> DNA
 <213> Ctenocephalides felis

<400> 761
 accaaaaatc ttattgcccc aaatttatnn tatctaacac tagcctatth ttatatattt 60
 ttacaaagaa aatgcgaaag ttatatatat tatagatatt tttacgtcta gtcgttttta 120
 tataaatact caatatatca tgaaataaat caaataaaat ataattataa ttctatatat 180
 aatgaatcaa atttaattta atttttgtga cattttattgc tatttctgag atcgtgtcat 240
 aaatgatctc aaggaaattt tcggtggcga ttggccatga tttaaattaa tgttgcttaa 300
 atatttgcaa cgcatthtcc ttataaatag tctaaattag aatcaagt 348

<210> 762
 <211> 372
 <212> DNA
 <213> Ctenocephalides felis

<400> 762
 accttctaca ttactaaaac ctctgatttt ttataaagta gatttattac aaatatttca 60
 accatcgaca accaaatatc gtgtcaaat cgatattagc ttttgaagat attctgaaag 120
 taaacagcga ttccacgtat tttttattag tticgggaag atttttattt ggctataaaa 180
 gtgttttgat tgctcgagaa caagatgtta tctcttcaca acaatcttta cagataaaca 240
 gataaactga gtcttcgatt aatggcagta ttgaaatgag gttttatata ataattagac 300
 acgaaggcag gtccagcagt ctgagcatca gtttcgtcta tgattgcaag tatatatagg 360
 gtaaggcgag gt 372

<210> 763
 <211> 500
 <212> DNA

<213> Ctenocephalides felis

<400> 763

```
acggagtgtgta aaatattggt gaagtatttt gaaatttatt aattttattcg aaaaggngat 60
ttcattaaat aaaaatgggt tacgaaagtg actttttacac gacccgtcgg ccctacagtc 120
gtccggcttt gtcttcatac tccgtaacga cgcgcgtcccg tcattacgtg gtgacagaca 180
ctccatccag accaagggtg gcggaagagc aatattctta ctctacgc agccagcagg 240
aaagatcttc tgcagatccc tacggaagga actattcgac aacttccacc accgaaagca 300
caagacgtgc aggcgggttat ccaggatctg actattctta cacgagcgaa cgctcatcca 360
gaactggaga tggaccaggt agctacagat ccagctacag ctccactact tctggacgtc 420
ttcctggagg aaccaattac cgctacttct cataccgtgt gtaaacacga aaattgaaaa 480
attggtttga taaattgggt                                     500
```

<210> 764

<211> 302

<212> DNA

<213> Ctenocephalides felis

<400> 764

```
acgccaccac ctctctggga ttcaccttca ctgatctttt tcaattcttt gtgttggttca 60
cngttataat tcttcataac gcattcattt ccaaagata tcgggttttc accatcaaca 120
ccagcgcata caggagtgtg gtcgtctgtg cagattttta tgcattggtg atttctgttt 180
tttgcggggg tagcttcgat taggctagcc aatgccacaa ataaaacgac agccacaaaa 240
taaagcttca tctttattta tcttctttcc aaaaattcga tgttgtctct cagatatattc 300
ct                                                                 302
```

<210> 765

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 765

```
acggaaggta tttatattaa tgtcaactct caaatgcata agaaaagctt atgggtcta 60
attgccactg gaaaattgtc taatttaata ttaatttctt ctatgtttgt aaattcggtta 120
ttacatattc ctgtagtaag attaatatga gtatgggttt aatttagtag tgaatactat 180
agtaacccta taaacataga cattaagttg atcaacgcgt ttatatcatt agatctttca 240
atgaaattag cattaataat tttcaaataa aaagcgtctt atattatcgc agtaaagttt 300
ccttaactct ccaagaatga ataaactgac gcattagggtg atctatacat caatattaca 360
gcgcgttcat tgatatttcg atgttatttg ctacatttca acatttttaa agttttttca 420
ttctcaagag tttccggcga tgttcccggt gctagtcgaa acacatgcag gtgggctttc 480
ctttctactc ccgtgatatt                                     500
```

<210> 766

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 766

```
accagagatg aaatttgcgt gcatcaccgg gaagttttgg aagacattgc caaatnngaa 60
tgactacaaa ggggtttcag gaattgaaaa cgaaaacata gaacaaataa taaatcaagc 120
tgacctgcaa aagtattatc cagaaattat aaatttatac aatacaatgc acgtctttgc 180
gttacctcta gcacatttgc agtcttgttt cacgtttaat attgaaaata ttcttaaaaa 240
cgaaaacaat atcagttatg ccaataaaaat taatggattt atcgaagaat tacaaaactt 300
tgtagtaata gctcaaacgc agtctaaatt ggggccaaat gaggaactca caactttaaa 360
agatgtaagc gatcttacca cacttgaaga tcttagtcat aaaataatta gtgaattaga 420
aaaaagcagt aacagcagtg atgaagtaag ttcatttgta aaatcattga agaccctaata 480
atgcttgtga attctataaa 500
```

<210> 767

<211> 479

<212> DNA

<213> Ctenocephalides felis

<400> 767

```
acattttccg caaacatggt tgttgcaact ttgacacgtg ttattagttt tattattatt 60
acaaagtctt atttggcaaa attttctttt attactattg gtatttgcaa gatgtctgtg 120
ggatcatcatt ttcttttgat tttttttgtg ttgatgtcgt gtagtccgag gaaagctgtt 180
ctgccaattc aaacaaaaac tgttctctaa ggatttgttt tctttggatt tttattcctg 240
tcgttctctt gtaaagaatc caggcattta tcgcagccaa atccaaaata ttgaaaaata 300
tttgcagggg tcatctattg gattggaact ggatttcacg gtatattttc tttacctttg 360
atctgccatg tcttctttgc tgaccataaa taagtcattt tcaatttttt tgctcatagg 420
ccccacgagc atataaaaatt ccaataaatg cacgtatttc ggtaacgatt tgctaatacg 479
```

<210> 768

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 768

```
actcaagatt tgttacaata ctttataaga cttaacntaa taatacgata gataacctat 60
tacctatcat actatattat attattgtgt atcatcgata gatattctatt atctatcata 120
ccgtgagata catacaccgt cattaacttg taatatacct acagaccttt tacttcttat 180
aaatactact gtctaattta tatattcacc tatattatat aggtttacct tacgccctat 240
gtattatctc tacctatcta ttgtctatac caggaattga acccgggacc tccgcgtgga 300
agtcgcgcac cttaaccact accctatcgg ctaccccat taataatata atatgggacg 360
cactgttggt tccgcgggac attttctaata taattagata attaatacta aggtggcgcg 420
acaacacgcg aaaaaagacg gttgattgta gcgttacggt ggccgagtg taaggtcgtc 480
gcgtgccacg cggcgggaccc 500
```

<210> 769

<211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 769
 acaattatgt tcttatttaa gctttgcaat aattctntag actgtcctct tattotcaat 60
 caactatcct ttaatgttcc aaggctatct tcgcgttcac aattatTTTT caattatccc 120
 acccctaaat ctaattctct cttaaattcg ccaattttac taatgtcctc taactttaac 180
 ttaattaata atgaaataga cattcacaac acatcaccta atcaaataat ctccatctgc 240
 acaagttaat ctttttattt tctttcaaat atcttattat tttctgttta taattattat 300
 tgttacattc tgcattatat gaaattttat cttagcattt tatgttacta actatatatt 360
 gtaattttgt gtatatTTTA attgttattc attatgtcaa ataattgtat ttttgagtcc 420
 tcttgagaaa atctgtgggc tatatatTTA aataaataaa taaataaata aataaatata 480
 tgtacaaata tacttataag 500

<210> 770
 <211> 106
 <212> DNA
 <213> Ctenocephalides felis

<400> 770
 acaaattatt gttgtgtggt agtttactan ttnagagtaa agtaaacgta acacacaatt 60
 gcatatgcat atattattat tcttatatac atataaaca tagtgt 106

<210> 771
 <211> 453
 <212> DNA
 <213> Ctenocephalides felis

<400> 771
 acataataaa tcgtgataaa attaattcaa agtagcacc aaaaccacc gaactttgca 60
 cgaaattacg ttttgttctc aaaaaagaaa aaggaaataa atcaagatgg tccaaggcga 120
 gaaatacctg gcaaccaagt ccttgtctat tgacaactct cacaagaaga gtggattcga 180
 cgctgtgcaa aaacgcgagg aggagaaaag gcagcaggcc aggaaggagc aggagcagaa 240
 agctaaatat ggagcctggg gtctgtttt caaagacagg gaaacttttg ccagcatgca 300
 cttctgttga aaacataaaa ttttatatgg aataataaat ttgttttata aaatactagc 360
 atactaaca aaggactaac atgattctac cttggaccta aatacaatac tcaaataaat 420
 tggaacaaaa cagagatggc aacgctttaa tgt 453

<210> 772
 <211> 182
 <212> DNA
 <213> Ctenocephalides felis

<400> 772

acaaagccat cactccacca attacgccag tttcaggcca catcaacccc gctttttttc 60
 ggoccttatga cttgttagtt tggtatatct aaatattaaa tttatgttat tcaacaataa 120
 gtaaacccca caacgtgaac aacactgctg ttctttgtcc tgaggtagga ttogaaatcg 180
 gt 182

<210> 773
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 773
 acaaagggtcc aattgaactt caagtaatta ctntatttaa accaaatgaa ctacatcata 60
 catgtaacat gtgtaaatat acaactacag ttttttttct aaaatttgtc atatggccca 120
 ttttacccca taaacataga taaaatggga cagtcagggg acaacagttc ttctaattgtc 180
 tgattttaca aaataatagc taaatattta atcaatgaaa aattttacaaa gattatattg 240
 tatatgactt agatctggta ttttatcaga agtattttatg agcagagttg gtataattat 300
 taattttttt ccttgtaaaaa ttgctttttt ttaactgagt ttacattttt atttacattt 360
 tttattatat acttttttgc cagggtaaaag gttcagtttg ttctttttgc cccatccaca 420
 tgtaagccat tatagagggt atatagaaac atctgttgaa tctaatttga aattaacaat 480
 agattttata aaacaattca 500

<210> 774
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 774
 aacattttctg tgataaataa actctagttg attcgagaat atttgttatg atctttgttt 60
 ctaatgcact tggttaataat aattatgcat tacaaatgtt aaaatgaaat tattatgttt 120
 atttaataag atacataaaa gtaatttatt ttagaaattt ataacttatt ttactaaata 180
 tgaaatatga atttctagtc ttaagatttt actaaattac tgatatttga attgaaatat 240
 tgctgaaaag taattataat ggacattttc acgtagcaaa ggtatttaat cagtaatttt 300
 tgaacatttt cattttgcgt atatatctca tctataattt ttacaaaaaa atattttacac 360
 atgccataaa atgaatgctc caataatcat ttttatattt acctatctaa ttcgngtaaa 420
 tttttatggg cccctcattt gtattatttt ttaatatgca attttaaatt ataagatcct 480
 gtgtttataa ttaatttatt 500

<210> 775
 <211> 473
 <212> DNA
 <213> Ctenocephalides felis

<400> 775
 actacgatca atgggtgat agcttcgaat taaaatgttg atactatoga gtatccaaat 60
 taaatttgga aattaaaaaa tgttgtgtgt taattgacag aatctttact tcttctaaaa 120

gcaaataaat aagttatatg ttatgttact tataaaataa ttaatatattt taaataacaac 180
aataatgtct gcattattat cttaacgatg ggaaaatgta gtaaaagtca acagatctag 240
ttgaccgat cactcctgat tattaacat aggggttaata aaagtattat aaattcatca 300
aaatttaata ttaaaaaatga tcaacaata ctgatcttat tatgatcata cctaattata 360
catgtgataa tataaaattt caaatcaata cactagcgaa tactattatt agtttatcat 420
agactaatgc attgattaaa attcagggcc atccttaaat taattaaaaa ctg 473

<210> 776

<211> 499

<212> DNA

<213> Ctenocephalides felis

<400> 776

acctttncac agcctctctt angtctgatg ttagacgttc ngctngcaac ttttgttggg 60
ngtntcctcg gcnncnaacg ngagntagcc tttgaagatc tctacttigna gctgatatta 120
gctgnattgc actgaanngt ggcgtatgac tgnnaanann acnnnnnnnc ccttnccagt 180
ttntatang catntanata attntaagnc atttttataa nctattatan anattatcta 240
tnggggagnc agncataatt gaaaccagtt ttttctatca atcatagatg atgtaatggg 300
ctaactntca atagaactat tgaaagttac nccatngcat antgaaaatt anactattca 360
annatnaaaa taatacaata attatgnngn agcagntach ttttaactat tgataactaat 420
gctactttta tatcttaanc aactaagtna ctcatnttgc tagaaaaat ctaatnaaat 480
tatataaact nacatcttn 499

<210> 777

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 777

acgttcacct gccgcgcaat cacatcggct ggtcaagtgg aaacctcagc aaaacttggt 60
gttaaaagta agaaataaga catggactcg ctctaataat tgttctaaca tttaaattac 120
tattatcact agtcttgcta tatttatttg ctttgttttc aatttagtat atcaatcaaa 180
gtagattaa tagtagtttt tcgagctatt taaaaatgat tttaaagcag tataaaaata 240
taactctaata aatattattg cgattgatat atttatataa attatttatt ctatagttca 300
atttaatagc tattaaaagt atattgtgaa tataaataaa attgcttgcc atagatatat 360
taaaatatag ctttaagcaac tgtctttata tcatattagt aaggtcctaa tcggtcatga 420
tattttgtgg tgttgattat tattctgtgc tgtaatcatt gtccaaatga tatctgattg 480
tttaacatga tacaaaaatt 500

<210> 778

<211> 188

<212> DNA

<213> Ctenocephalides felis

<400> 778

aatgctttga aatattttga ttcgaaatat tanatccgaa ttaaaatatt attagaatta 240
 ttatttttaa tcgttgaata tgctttttta ttattttattc attgaactta aaagcttctt 300
 ttcacaaaga tttatttaaag agcaaatatg ttttataagt gagtctactt cctgaaaaat 360
 gtcagaatac ttgcatttta atatataatt cagctaaatg acaagacatt ggcaaaaactt 420
 gtattcactt atttttaaatt ctgaagaaga cacaacattt aaaaatattg tcgattttctt 480
 gnataaatta tcgcccttaa 500

<210> 782

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 782

caaactttta tagatgcaag aagcaaatta ggatcaaaac ccaattttatc ttttttttag 60
 tgcagaagat ttttttctga tgcattaatc ttcatacagt tttatgttat ataaaattat 120
 aagtaaatat tttacctcaa catcacttta cagaatttca gtaaaaattg agcaattaat 180
 acaattcaat attgnaaata ctcttactgg ttggagagcg gatagtttca aaaattttct 240
 aaagaaaaat tgagtgtcaa cccgatgttc tttttaaacc ggattcgtta tatgccattt 300
 cattaagatc gaaacccaat ttatctattt ttaatgcaaa gatttttttc tataattaat 360
 gtattgacct tcatacagtt ttatgttata taaaatttta agtagaacat tctacctcaa 420
 cattacttaa caaaatttct ataaaattg agcagttaat acaattcaat attgaaatat 480
 tcttactggt ggagagagga 500

<210> 783

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 783

acttcttttg taagaattaa tttgtttata tttatatgta tgtatatgct aaaattacaa 60
 ctaggtatatt ataaatcaga agagcttggt ttaaaacaat tcatatttcg ccgactcccc 120
 tattgaaata taaattaaaa ttttgctacg actagaacgc gtggtttctt gcaaagtgag 180
 atcattttat aatgataaaa ttctgaccga aaatttatg tcgaaatgtc agaccagaat 240
 tagttgagtg taaacgggtt attcgtcttt caatgtccgg cgtaagtcac aatacaatat 300
 acgttcactg aagcgatacg ttaaaagggt ttatagaata agaatgcatt tcaataatga 360
 ataatacagc taaagattga attatatccc actttgcaac gcatatttga gttaagagca 420
 gagaccgacg gcagacggca gagagcgatg tccatgccgt cgtcgtgcct gaaatattat 480
 tattccactt aacatctgaa 500

<210> 784

<211> 422

<212> DNA

<213> *Ctenocephalides felis*

<400> 784

actttcttcc caaaactcga ctttttattt gaaaacataa ttactcgggt gtagtaaact 60
 tttntaaaaat atgtaacaaa ttacttagca tctttctaaa atttattcaa ataagtattt 120
 aaattaaatc ttctctata aaatcgtttt atttctacta atttccaata aatgacttct 180
 cgctttgctg ttttttatgc tgnnggacaa acaacaaatg acatatgacc aagcgttgat 240
 atatgcttga gcatgatatg tcatgaatgt ctttattgta attatgccta atgccttaat 300
 aattttcttg aaaatatttt ataccactat tccgtttcca aattcatcta ccacgagtaa 360
 ggtatacatt tgaaagccat aaacaatagt tccatttgta tcatcaatgc aatccctgtc 420
 gg 422

<210> 785
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 785
 actataccgg tgcntaccgt ggcaagatga acgtcccaaa acgtcgtgta tcaaattaat 60
 agtcctcgtg gctaatttat ttattctgga aaatcgtgcg atttgtttgt gttcacaaaa 120
 tttccgttta ccaaattttc ctctataatg ttccggagtgt tggccgccac ctcgatttgg 180
 ttactattgg catgggcagc tatgctaata tttttccttc cgttgatgtt cgttggtgta 240
 gcagttttgc cgggactgcc attactgatt attogaaggg tgtgctacgt gcccttcgat 300
 tgcatttaaa tttgatttct tcaattaaaa aatcaatttt aaataaggca gtgttctttg 360
 aaatagttat ttaatcgtgt catttcatag tagttgtgat atttatattt tttaaacata 420
 tatcttctaa tcattgataa gtatgatatt tatacatagt cttacatatt aaggtataat 480
 atataataga ttagtcgtat 500

<210> 786
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 786
 acaattgaaa tatatcacag tcaacaataa aactgatgca attttagcac aattgaagaa 60
 tgaaatccaa ataccataaa caacgcttaa caaccaccta gctaattgat agctagggtg 120
 ttgaatattg gtaagtaata taaataatga ctttatcata caataatatt actttcactc 180
 atcaatttga cacaatttcc caaataatta taccaataac tgagaaaatt tttgaacaaa 240
 tttcgacagt tggttatttg atatatgtta tgtgctgata tgattataag tgtatgatat 300
 atattgggat gcttaatgga acatttccact caaagatgca tctaattgcag ctcaacaatc 360
 aatcatgaaa gatcgaccgc aattttccat cttgataact agatgtaaca aaatcgcatt 420
 tttgtttaga tatttattta tatgtaataa cactgcaatg cgtgattgga tatcaaaatc 480
 ccataagcgt tttttataat 500

<210> 787
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 787

actgaatatt gttgtggttaa ttatttctgg tacgaatgat tcctttgtgg ataaggtagt 60
aacttcttgt agcaccgat ctgttatgaa gtcggggata tctttgtctg cattcatatc 120
tggtggtggt gcagtatggc ctggatttgt ttctcttggg cotgttgat gaatttcttt 180
atcatgctcc gttggcaaaa tcggaatata gctactttta tttttaaaaa tctcttcata 240
gtgaccagca atattattat tgttggttacc attaatattt atatcgattc cttctgtgat 300
atctgaatat tcatcaataa aatcatcgga gcttaacgtg tctggagttg gagtcacctt 360
cggtttaaat gtggtcagac gtggcaaagg aggaaaatcg ctttcttcata tcattttttc 420
tgtcacattc atgattttca caatcatatt accgtaagtt gtttcttcga ttctgaact 480
gcttgataat gcctcgcccg 500

<210> 788

<211> 436

<212> DNA

<213> *Ctenocephalides felis*

<400> 788

ncatttcaac tgagttcatt aattgagttc attaatnagt gaatgccaaag gcatttacct 60
atattcctatt atgtaaaata acgatggctg catttctttg aattacaatc gttattaaaa 120
ctaggcaaac tgaaattttt gcccttggat tgcagtgtt gagtgaatcg cttttggcaa 180
atgggataat tataatcata tcagagtcca tattatgtgg tocaatattt agttaagatt 240
tgtattatac acacagcaaa aaatataaaa tataataaat atatcctgga aagattagt 300
aaaactatta taaactaaga cttctcgata tactttcagt gaatccaatt acttcgaaaa 360
aacctttgga gttagaaact aaattcctag tagtttaagg ataataattt gatttgaatt 420
gtaggctgct gtatgt 436

<210> 789

<211> 277

<212> DNA

<213> *Ctenocephalides felis*

<400> 789

notccctcca acgcagggtgc atcgctgttg gcgctgctgc tgatctcctg gggggtataa 60
taaaancgaca tcttactctg agattcattc aaatttgga cttctaatagc agccaactta 120
tctatttttcg ttttaataata catatctatg cctgcaatat ctttgggatc gaacacaaca 180
gagtcgctac gaccgcaaga accgctttta caattctcga aatagaaact gggcaaattt 240
tctaaaacct tattaagagt ctgttgctgg tatttgt 277

<210> 790

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 790

caattttgtt gatggcatga taaatataac ttcttataat taatattgca gattaaactn 60
 gtggtatact ctttttgcca tcagcatttt ttattgattg aatacaacag attgttaaatt 120
 aatatttcca atcaataatt gtgatgggtt atttctacta gatttgaaaa tcatttgatt 180
 atgatttaaa catataaaaac cgttaaattct cgttttaatt atttgataat agtgctgaat 240
 tacacattgt agccattata ttaaacaatt attcaaatac ttattagtca aaattagtgt 300
 ttactataat ttaattttaa tattgtgcaa ttttatgtag tataatttag aaatttatta 360
 ttaaacacgt gttttattgt gaataaaaata taagagattt atgggaactt tttcaataac 420
 tgaaattgag ttgctttgca ttttttaatt atgatgaatc gtttttgaaa tccatattta 480
 tattttatta attgaoctgc 500

<210> 791

<211> 326

<212> DNA

<213> Ctenocephalides felis

<400> 791

wcmdkccadg nhtastcrys ktwbkhtnta hdvdacsagd mhacrncvwr tbwwyrrwyk 60
 vnwmtnsnwr manrgarcyr chsnclnamnb tydnachcks mcratndats trandsncnc 120
 ttacaccctc catgctgatg ttgaagaatc ctttcgtgtg tatttggaac aggttgacgc 180
 ctncatcaaa tttataattt ccttcgaaaa tcaaattgtc gaacatcagg tcaatttcca 240
 tttctaaact gtcacgggtc acagttgtgc tgacttcctt gatttcgcaa ttgctgctcc 300
 cgaagacttt gttgtctttt cctgt 326

<210> 792

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 792

accgttggtc ctagggggat aaaataagca gggtataatt tttgtaaata acaacaatat 60
 ttataatcat actggaattt ttacagaatt tgtggagcaa gcctagataa aaattttgcc 120
 ttattttctca agatgttcat atcttattat ttatgttcaa tattaaataa aaacattacg 180
 aattatgatt ataaacatta ggaaataaat tacaatatga ctaaattaat tttcaatctc 240
 ctatcatttc agttaatttt tactgggtgc attatagact tgcttcatta agtttcagaa 300
 ttaccttcaa tagttgtaat tataaaatat atttataaag tctataaatt agtaaaaatt 360
 gtatccgagt aagcaatttt aaacagatta ttactcact taatacattc actaattata 420
 tggaatacta ttagttagat tagaagtagt ttatgaacaa atgatttggt catataggag 480
 tggcttgtga caacaaaatg 500

<210> 793

<211> 219

<212> DNA

<213> Ctenocephalides felis

<400> 793

aatatgggca acaataaaat gaacattaac aacgtgaagg cgtaaagtgc gcaatactgg 60
aagttatacg tttgaaatta ccatgtggct catatttagt atgtttaata catttagaac 120
ccacaaccac gctaactgat aattaatatt tctaaacggc aatacgtgta tcattccgtg 180
tctgctatct tcgccataat caaataaaat tgtttatgt 219

<210> 794

<211> 252

<212> DNA

<213> Ctenocephalides felis

<400> 794

acataagaat aagttattat tatgaggtta acgacgcgcg aactaaaatt atcacgctga 60
aattttattgc ttgaatacat attaaagtaa cataaattca aacttacaca tttattcatt 120
tatattaaat gaataaatgt ataaagatta ttaccattca cgttcttcac atattgcgtg 180
cttacattat tactttgatt gtgcaaatat tataacattt acattatgtt ctaatgagtg 240
attttttcat gt 252

<210> 795

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 795

acttagctgc aagctttttt atattctgac cttgttgcac gagttctcta aagtattcgg 60
gacactcatc acgtttttaa aatcttaaaa atccgggcat agcagcaaaa tatgttgact 120
gcagctgtgc ttgagaccaa ggtccagagg cttttgcttt atcattttct agaccagctc 180
ctataattaa tgcggctgtt tttgttcgca tagtgtttgt tgctactggc cagtaatttt 240
tcttagaatc ccatttcttg atattaaatt gtcccttata tactgtatct aaaagttttc 300
cgagctcgaa agcttctttt tttccacctt ctgttaattt actagaactc tctgataagt 360
tagtcaactt gggctctcca ggataattgc aagcttcatg gctggacctc ttncatacaa 420
aaacaaactg aagttatcat tgctaaaatg tattgactga ctagcaaatc aaaagaatca 480
ataactctca tgtactataa 500

<210> 796

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 796

cgggggccna cncttatccg atanacccat agaccttata cnttcataga ccttatncaa 60
tacatggaen gggagntnan cgcataaaaa gcgtcaaaag atgtcctacg gnatgagggc 120
gtacgaggggt aatttttgcgg ccgagatatg tcaaatacga acacgagctt taccganatt 180
agtogaatgc actcgatcgc ttaaatttta cagttacttg gggtcacgtg atgtttgatc 240
gttcggnntt ttaaactaaa agatgataaa aatatacctg ttgtaaaatn ngttaaangt 300
aaaatgtctt ctaaaatgtg taaggnaagg tgcttgattg cagtaaaacc tgttttgtgc 360

tgttctgtat gcttcgcaag nattccggga aatncgacat tgatcgttta aaanatcgag 420
gattcttttna tatccttcga ngaatgttta tttatgttat atatagantg ctantcaaag 480
tctttnttta tgtacaaagt 500

<210> 797
<211> 324
<212> DNA
<213> Ctenocephalides felis

<400> 797
gctgaaggca tgaacgagca attgagcaat ttaacttaag aagttttgac ccaagcccaa 60
gcaggggccc cgcacgtgcg ttccagtgtc gacaaattcg ccaaagaaca cgaagccacc 120
cacaccggcc actaattata aacagaaaac cttctgtgat catcatttat catatcaaat 180
atatatataa attcattaat taattaaaaa ttgttttata gttgtttaaa taatcttcgg 240
atatttgtaa aaattatttg gatgctcatt tgatttatat tataaataan atacttcata 300
aaaaannnaa aaatanaaaa aann 324

<210> 798
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 798
gcctggcctt tgtggtcacg ggcaggtaaa acccttgaca acttcgattg catttcacct 60
tacattttca aatatgtatt tgggtgtgca ctagtaattt gcataatgtg tttagaatgt 120
tccggtgaaa ctttgctgct atttataaac gttaagcggg attagtgcac tacgttcaag 180
gtattatacg agcataattt tacataattt aattgattgt cgcaagctac acatttcatt 240
aattattctg attctattaa ctaccgcaga ttatcctgaa actaaaaaaaa atatagattt 300
ttaactatca aatatctctt tacctactgc tgttcagtat tcttttaaca gtgtttgaat 360
tgataaatgc ttttcactat tttatttgcg aaaattatgg aatattcgca aacactttat 420
caaataaaat gataaatttt cgtattctca aaagtaaagt cttgtagnaa tctaaaataa 480
tctaatacat gcccaaagtg 500

<210> 799
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 799
acaataaaaa tacgaagata taaataaaaa aatgagaatt aactttttta acaatatggn 60
aagaaattta ttataagact aaaatatattt gttgtatata aaggtaagac acaactaaaa 120
taattgaaaa atatgcaata actcactata caaataattt gaagaaaaaa caaaaaacac 180
ggaaaatata atgcaccaat tactatacaa ttgtcaaagc acgaattttg aaaactatta 240
aattaaaaca aatattaaat taaaataaaa taaatgaaaa ggtttttaaaa aataaactct 300
tttcatcgag acgtgttata tgtttggaag aaaaattact agtgaattgt gttgtgtgtt 360

tctatgtaaa gataaggaaa ctggaagagc tgtttcggtta ttggtgaaag actgagatag 420
gaaagttttt gtggcgcttt gccggcgaaa aaatacgaag taaggantgg aaaatatagc 480
tttgattaa gctgtaatag 500

<210> 800

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 800

acggaatata cgtttccgtg acccttgagt gccaaatcaa cagatggttc aggactgtgg 60
gnaaccttan atcttaattc aacacttcct ggtgattttt tctttgagtc gttaagcgtg 120
aaaactgact cagtattgaa accaacaaca gtcttctcgt ccaatccgct agtttgaagg 180
tcaagtgggtg caatcagggt atatgtgata ccttgggtatt cagcgaattt gctggccaaa 240
tagaatttga tatcttggaa tggtaatttg gcggctttaa catttggtcc gtgaattcca 300
ataattgttt tggtagcacc agcgcggaat ggatattcaa cagcatcatc atatgcagca 360
taagcagaag tcaatccgaa ttcatacttc acgtcattca cangcttagc aatagttcga 420
taagtcatca agttttcatg tccagttttc aatgggtgtag ctgttggttat cattacggnt 480
tacggtccag nttaccaacng 500

<210> 801

<211> 166

<212> DNA

<213> Ctenocephalides felis

<400> 801

acacttttaa cgactaatgg agcggagtag tgacttatca cagggggccgt ataagccaaa 60
ggcgctacgt atcctgggcg agcaaaagct acagctacga gagcaaataa aacgaccagt 120
ttgaacattt tgatttagtt ttgaataatt ctcaggaggt ctgaat 166

<210> 802

<211> 266

<212> DNA

<213> Ctenocephalides felis

<400> 802

acttaataaa atatttaaaa tttgaactct acttctcttc ttaaaacttt tcaaattaaa 60
ancatttatt ttagtaaaact atgctcatta ctattaaata cacatatcta ataaaatctg 120
cacatgaaaa gaagagcggg taaccgctgg gttgctccct tgagaaatat ctaggctata 180
tattcaaaga aaaaaatta tagaacacgt agttctgatc gctattgata taaatatata 240
aaataattgt aaaatattaa caatgt 266

<210> 803

<211> 499

<212> DNA
<213> Ctenocephalides felis

<400> 803
catataatac taattataaa tttaaagtgt tgggggttgcg ttgcttcttg gaaaaacatc 60
gcaaggaccc atacaccgaa tgaaaaaaaa taatttatta acgaaacgcg aattactaga 120
acctgccgtg gggggtaggc gacaggaaca catttaaacg cggaaatcgt tttaaacgat 180
attaaaatta cgaacaagtc ctgcgacgaa caaaaaaaaa attaaaatgt ggacgcaaatt 240
aactcaaaat tataatttaa caacattata aaaaataatt aaaaattgtc aatgtgattg 300
aataaaaaaa attcatgcac aataaatccc taaagcaatc cgccactgcg caaaacactg 360
tatgaaatct gaaacaaaac aaatgtagtc aatcgtaaat atttgaaaca taagatttat 420
attaaaattt aatattattt aattatattt aaatttaata atctgaagat tgattaaatt 480
atttatatta actcaaagg 499

<210> 804
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 804
gaacaagagg tttaggnatg agatctgcaa aatttgggca agatctaaaa tcgaaggaaa 60
ttattttata tgaatatttt gaatgtaaaa aaatgtgttg aaaaatttat attgtaatgg 120
atggtttcat aaaggcgggtg ctagaaacaa aattattata gttggtttta acatatattg 180
caagatattt caaagatatt tgttttagatt atttttctac atttattttt catgctctta 240
tttatagaat cagcattacg ataaaatgtc taagtittaaa tattgagtct gctgatcttg 300
agtcctaact tcaatatcag aattgttggt ggcattgttg tagaagcact tctgtgaaag 360
atcttttgcc catatgaatc tgtggtcaat caatttgcac gtgggttgct tataattttt 420
cctatttggc caattattct ttggctacga ttttgagaca natcttttcg gtatcaaata 480
actcttgatt cgaataatca 500

<210> 805
<211> 216
<212> DNA
<213> Ctenocephalides felis

<400> 805
actaaagatt ctttatattt ttaatatgtt ctcatcgcac ccgtttaatc tagttcaagt 60
tttataatac acaaacatct tataaattta agtataaaat ctaaaaatta tcacacaata 120
aacgctagtc tttcagagta aataatataa cccttaagac tttgattcct aaattaatgg 180
taatatcaac cacaaaatat tggaaaagaa aatcgt 216

<210> 806
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 806

```
actgtaaatt tttacacaaa atgcaaatat ttaatatctc ctataattta tggattaatt 60
ctgccttatg tcggaagtca accggatcat aaaaagtgat ctaattgcgt aaaaaaatta 120
gtcacacttc tgccaacgta tatcttggag catcgtttta ttcacagata tggtgcaatc 180
atttcaatta tacgttggta gatcttctag tcttagtctt gtttttataa tcatagagga 240
gactggagaa aagaatactg gaaaacctta ctgggtgatg gatatccaca atatcgtag 300
cagatagtat ctgggataga tttttggagt ttttagtcat ctagtaaaat attttttcac 360
taatattaac aacatccaga ataagaattg atcaaaaatt tttacttcat tttataataa 420
gtttgttagt aattcgtgat aggatatatt tttattactt tgattatatt ttaataactt 480
tccttccatt ttaacaacgg                                     500
```

<210> 807

<211> 355

<212> DNA

<213> *Ctenocephalides felis*

<400> 807

```
acaagaatgc aattattggt cttcaaagga aaatgattga ttttctacac caacagataa 60
aacagtctct aaaagaattt gtaaaacttg aatatttttt tcggtgatac ttgcaggaac 120
cgtaaaatac aatcaccacc accaacttta gcttcagcat tcttggtttt tacctttttc 180
tgtttttaac acctgtgaac tgccttttcc tcgacttcaa ctgggtcaac gatattttta 240
gataccaaaa aatatcgtat ctggataaat ttgttgtgtc tgcttttaat attttagact 300
ttcatttttg tattaacatt ttttgtgaga acttttactt ttactaagtc ggggt 355
```

<210> 808

<211> 424

<212> DNA

<213> *Ctenocephalides felis*

<400> 808

```
acaagcgatg gaccaccngc tcncccgctt nngttggtcn gtagtaaaag aaatctaaac 60
ctnnngttct tatttattaa gnncattgng taattcaact tacacctagg taatttatta 120
ataattatcc aattattaat aaaaaaaatt aatattgact acttaattac atttatattt 180
gctaaaatag tatatttaca tcaatttttt ttttcaaagg caatataaca gaaaaggctc 240
ctgataccat gatcaggcag attctttcag cttgtggtcc agttgtttct tggaaacggg 300
tttctgcatt tggattttgt gaatttaggt gtgtattgta atgatttatt aataagacaa 360
aaatgtctag gttattaaat tacgaaattc attccagttg tccagaagct ggtttaagag 420
cagt                                     424
```

<210> 809

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 809

```

acatcacaga tttttttttt tcaatatata tttcagtggg gagaaattta tccaacangg 60
gggtaatttt gtcataacca gtgaaatatg tttattagcc caacttggct tcaaataata 120
taattttttt aaaccttatt cacatattta ttatcactgt acgacttttt caatgcgcgc 180
tcgaacgaaa ttatgaacga gttttaaaaa tatttttagc agctcttaca gtgttggtat 240
ttgtaaataga tgatatattat aaatttcaac agataactga agtacacagt caataaaaatt 300
tccaattttt cacaacnggt taaatttgca ccaccggnaa ctggcncctt tgcaaaaagnn 360
tcctntntngg aaantaattg gccgganncn aanttanctt atnttttttt cnggtccana 420
ccgccctttt aaaanccctt ttttttnggg aaaaaatttt ccnggggttt ttttttnccn 480
aaaaanncn ngggnnaaac
500

```

<210> 810

<211> 298

<212> DNA

<213> *Ctenocephalides felis*

<400> 810

```

ggggacatat ctaaataaca nccaaaacaa ctctcctttt tgtttgtgct gggttgcaag 60
caagcgggga ctttagtcaa acgtctntca aatgcttnta aatctttaca cgcagcttgt 120
tcaagtgaac tgtttactat tttttgtgtt acatgatcac ataagatnat natgccacag 180
ctaaaatcnt tttgaaaaaa taaacctggt atttattaca cactacatca atttacactt 240
caaaactaag tngcattttt attgaatata taacatgata agctaaactg aaaaaatg 298

```

<210> 811

<211> 243

<212> DNA

<213> *Ctenocephalides felis*

<400> 811

```

actgtatctt tttgnctatt cacaaaaagt atttgtcaga agtgggattc gaaccnnggc 60
cctcatagag gaccagaatg ctcagccagt tgtaaacggg caaggaaacc ttgagtatgg 120
cgccttagac cgctcgccca tcctgacata cagcaaagct ttgcaattgt ctcacagaa 180
acatatattg tgngtgtaat ttacgctaata acaatgaact ttgtttgaga tttttttaca 240
agt
243

```

<210> 812

<211> 500

<212> DNA

<213> *Ctenocephalides felis*

<400> 812

```

acttcaagta taaccoaacg attcactttn ntctgtgcac tttggcataa atatccngna 60
aaatatgtaa aacaggaacc agggcaccgt gataatgtaa tcaaaccgag gaaaatgatt 120
tttgatcgta tccatacctt tatagcgaag tcgggaatcc ttgtgattat attttctaa 180
aaaaggaaag aagttctcgc atactgaaaa gaaaagtgtt gtctggtggt ccgatttcga 240

```


actttcaaac ttattcattc ggttaccgcg accgcgaatg aaatattatg atttttcttg 300
 ctcttggtccg gaataagata gattgacttc gaatattacg gaatataagc tgggctgcga 360
 gtaaattgtt tgatttgggg ctttttatta tcgataaaat atgtgcttcc tttgaagatt 420
 gtttgaaact tctgtgttat cttcaagttc acaatgataa cattaagctt aataataaat 480
 atgttagagc aaacaaaaaca 500

<210> 813

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 813

acttttcaaa ctatactgga gagttttttt cttntatttt ttattgtaat tactatcaat 60
 acgatcacct cgttacggtt tgacgttgag ttctgggaca ccctgggtaa attatgttaa 120
 ttatatgtat ttgagcataa atacatgtaa agcaaatgta ttactgatag acttttgact 180
 ttaactttac ttgaattagt aataaaaacca catgatagaa aattattgag tttttttata 240
 gaaaagttta ctgttgattt tttttattaa atcattgcaa tgtgctaatt cacattcttc 300
 attactcaat tttatgccca actcattata atattttgtt tttcttaagt tttcatacct 360
 cgtatcagaa ctttctcaaa gctcatccct agctttactt taaacttcctt attatttcac 420
 tgataataag aacttttgat ttttttaaac atatatctat caagttaaag tttaaaatat 480
 tcatgaaatg aactttgatg 500

<210> 814

<211> 285

<212> DNA

<213> Ctenocephalides felis

<400> 814

tctgantatt ttatnaatat ttaagacatg tgcnaanntg angtnnnttn natanaanaa 60
 tngtgcnnta tcaaaacgtn actttttttt tctctccaaa ggcaattttt ttaaaaaaaaa 120
 ctccgattat ccgaatatat gattatccga atgggtcccg gtccccatta attcggataa 180
 ttggagttct actgtataaaa actttgtata tttttgaaaa ttttgaaaaa actattgata 240
 tttgtttcag ccatacaagt tagtttaaaa attaataatc tcggt 285

<210> 815

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 815

actcttcttc gttcaccaat gaagtttgat tgtgcatatc aaacttcctg tgtccaccat 60
 agccctgaat tctttgccat ctatgggtgac acgtttcata tatttttctc ctgtctgac 120
 ctttttatca gcaatccaaa ttatttcacc actaggattt ttagtgctcg tttcaatttt 180
 gatcttatta cgttctgggc aatcctgaat aaagtgtcct accttcctgc atcggttagca 240
 tatcaattct ctttttcgag attgttcact atcttcttta acctcacact tcaatttcgt 300

ggtagttgca tttcgtgtct ggctgcactc atccgtttca agctttaagt catttaaggc 360
 actttcatga gccaaaatgc ttgtgccgag ttcgtcataa tcggcgtgct tctctgcagc 420
 taaaatgaca tacagctggt gtctagcagc cgtaagtact tgccgttcgt tctcgaaact 480
 catgcgtaac gcttggcaca 500

<210> 816
 <211> 346
 <212> DNA
 <213> *Ctenocephalides felis*

<400> 816
 actgcatgcg tagtttgcg aatgcttctt tccttntaga tatgaatagc tcgcattctt 60
 gatcccacca cacggagggt ttgaataacg ttctttttgt gatcttaatt tttttttata 120
 ttcttttctg ccgctatttc tataattcgg attacatggt cgtattttaa attctccttt 180
 tctctagata taggcgattg taacaatcgt gttatgtctt cagcacatcc ttgccaattt 240
 gctttcttga tgttccactt tttgtgggga taatatttat gtaagttaag aattccacac 300
 ctatgtttat aatgattaga agatggtcag aaccaatgc ttctgt 346

<210> 817
 <211> 500
 <212> DNA
 <213> *Ctenocephalides felis*

<400> 817
 accattatta aaattattgg attgttttat ttgtgcact cttaatatata atttgcatga 60
 tngtagtatg gtgtggatag tatattttat gtagaatttg agggtaacta tgtatatatg 120
 catcgataat ttttcacgtc gacctccatt gcatgtcaag ttgcagacgt tctgtttatg 180
 tcaacattat caaggtaatc gcaactcaact caacaatatt tccatatccc ctttttggtta 240
 tagctaaaaa caatttggtt attgtattta agcatttaat aatgtgttac aacaatagaa 300
 attgatttga tgtcttgggc ttgccatcac taacagtgc acgagctttg gcttggcaag 360
 caagttctat actcatctgg gcgaacttga tatcaagcag tagtgatata cgttttccact 420
 tgaaaacatg aattataaat aaatttgcag ttgaaatagc acttctggga attctgcaga 480
 acgtaaaaat ataatttcaa 500

<210> 818
 <211> 500
 <212> DNA
 <213> *Ctenocephalides felis*

<400> 818
 acaatagcca taaagcatga tgaaataatg tncacaatag tctctaagaa ttccattggt 60
 ngaaggaaaa gttgaaatat tattatgtaa gttaaacaga gttatatgtg aagtattatt 120
 ttctgggtgtt aacattgtga gcacttcaat attggaatta ccccatatac ttgttatata 180
 ttgtgcgcgt agaaaatgct cgtgtaattc ggaccgacac ggtgggtgaat gtgatgcgtt 240
 atgatttaaa ttttttttat taaatggctt gttcactttc tttggtttat aagtgataat 300

gatcttatta catctcgtat cattaacagt tctttaatth ttcaataatc gggaacattt 360
 cactgctgct ccctgttata taagcactaa gtttttgaat acttcttggg attctaaatt 420
 tgtttaacaa ttgtaaaagg tcgttcttac cttttaggaa aaatgatggg tatagcacia 480
 ccattagagt atgaaatttg 500

<210> 819

<211> 431

<212> DNA

<213> Ctenocephalides felis

<400> 819

accgataatc tctcaagaaa tgctaattctt ttaagtgaat ttctcaaccc tttagttagc 60
 caaggngttg aagtattatt ttttgggcaa acggtttttt taatgagagg aaaagtttga 120
 ttgaagttga ataaaaatgt agaaataaag ttgtcgaaca ttgtatttga gtctttggac 180
 ttgttaagca aggtccatga ttctttttca agaagacatt tgaaaatcaa tttatttgat 240
 tcatcaaaat aacgtttgtg taagataaaa gtagatttag aagttgaaaa attacaaaaa 300
 tttaatatta tgctcogatg gtctgaaaga gtggtattta taacacgcga atcaaagtct 360
 tttaaatttg tgaagaaatt atcaatgcaa gaagaagatt gatgcaaaaa acgagtaggt 420
 tcatgtatag t 431

<210> 820

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 820

actgaaaata acaaattttg aattattata gttttacagg tttattttat ctaataaaaa 60
 angntagttg acattttcga aatatgtgaa atatatttca acttacggaa aattgcaaat 120
 aaatctgtca tgggcatgac agtatatgta tatttagcag tatatgtaat tgatttgtcc 180
 acttttatcc attgggtaac atcatattta ccaatatctc tgctattctc acatctgtca 240
 atagctgctc cacatctagc agttctgcct ctgtccgaac aggaaattta ttataaactg 300
 ccagtgtata atgaggcaaa tcatccttca tatcacactg gcatcactgc ttattaagcc 360
 tattcattaa aacttggtgc cgtaatgaat cagccttttt attaatattg agtgcaaaaat 420
 ctgaacaata tacaacctta tactgaggtt taccacaata ttctatcaaa ggctccttca 480
 aatgcataga catctcacia 500

<210> 821

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 821

acaaatagaa aaaatactta tttttttata acttatatac catatgaaaa ataataaaaa 60
 ctttatttgt ttacgtcact atgctctatc attatttacg aaaaattttt atagcttaa 120
 agctttttgt taataatttt caataaaaaga ttcaactaaa taattatata atataaataa 180

aggatttaaa gtttatttga tattatataa gttattagaa tgaaatctca ctacataaga 240
 taaaattcaa ttttatctat gtctcatcga aatagttgta taattttgaa ttttgtgacg 300
 ttttttattt tatttaaatt tagttatatt tgaattgnta gtatcatatt ccattaacca 360
 tttttcatag gtatcaatac aacttttata ttcataattat atattttaaaa aaaatgttta 420
 tgaaattttt aaataaatgc aatagcagaa tgtattttca ttagttatac cgaatatagg 480
 aaagccagga gcttgtgnaa 500

<210> 822

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 822

acattaaaaa tatttgtttag agttaaattt gaacttgatg acagtgc aaaataaata 60
 taaannattt aaaatttgta tgaattcaag ttaaaatag tatgaatctt aataattaaa 120
 ttttgtgagt aattatata atatatagata atagattttt aattaataga taacaagttt 180
 ttagaactac aacaattgta ggagaagggtg aacatcttaa ggaccaagag cgaaatcttt 240
 gaatatcaga aagaaatggt tcaaaatgat acgaaaaatg ttttaaagtt ataagaagaa 300
 attaatcact tgaatttatt tgaataaaat cttattttaa ctccatttat taatactcat 360
 ttccaattga acttctcacg aaattttaaaa aaattgaatt tattttattt taagttagtt 420
 aagagttcat attactaaaa gttaaatttc attatgtatc ctttaatatg ttcaccgccc 480
 tcccataat tttattaaat 500

<210> 823

<211> 240

<212> DNA

<213> Ctenocephalides felis

<400> 823

actccatgtg tcataattct attattcaat atgtgcaaat tacgttctaa tataaatcgt 60
 gacaatatca taatatattt atcgtggaaa taatatagca attgcaagct aactaatgct 120
 tcctagcgta ggagtatttg taaccgcgcg gtatagcggt tccacttggg ccatcatcgg 180
 ctgccaaatc ccctccaaga cctgctccgg ccctgcccga tggagatcgt gcttcggcgt 240

<210> 824

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 824

acctaaattt caaaattgat ttatataatt ctatatcctg cgtgtcaaat taaatctata 60
 ttttaatacct aatattttaa actaactacg aatgaattca gtgtttcata catacataac 120
 atctctgggt tctagtatac tattgttagt ataatcagaa ccactataaa aaaagtcact 180
 ataaaagttg aaaacctaat ttctaagac tattatacta gagcacatga taagaatgca 240
 gaagcaatat aaatctatct ttttgtaata aatttctata ctattactat tacttttctt 300

agtggctcgt aatatgcaaa caatcactgc caccgcagta acttcagccg taatttatgg 360
cacatcactg ccgatatgat aatttttctat gctttttatta ctctgaaaag cgttttcgttt 420
tggccacggg gtcgggttga aaattttcat cgggtggaaac ttgccgtaga cgtcctcctg 480
ctgctcccc cttccacag 500

<210> 825

<211> 370

<212> DNA

<213> Ctenocephalides felis

<400> 825

acttgaaaat tactaccctt gtagagagct agcaaagagt ttggtgggac taattgttta 60
cttccaaaac tccgcataag aacatttgca ataaatgac aataaatata tcttcttcaa 120
ttagatctta gtgataaatt aatagtgtaa ttagaacagc accaaatata taaattatgc 180
caataaatca gtgtttcaca cagcactgct acaaaggta aactaaccta gcggtcttgag 240
ttaatcggag gagagactca acacttaatc ttgcaataat cttgatatga tattgtgatc 300
taagcaataa ttttatctta agataagaac tttttcacca tattatgggt agcttaactg 360
tattgtcagt 370

<210> 826

<211> 166

<212> DNA

<213> Ctenocephalides felis

<400> 826

acaaaaaagt taaaatttta agaattagca gttgtttaag tgtggcatca aaaagttgtc 60
acgtgaccac gccacgatt gcaaaagaaa ggggtgaagaa gaggggtata tcatggccga 120
acagcgataa ctcagaaaat aattaaatct ttaaaaatcc tcgcgt 166

<210> 827

<211> 304

<212> DNA

<213> Ctenocephalides felis

<400> 827

accggtagaa aaattgttga taatgtgcgc attactnatt cgattttcaa tatttgcgat 60
gaccantaag tttggttagt tttcaaggaa ctctcgctcgt gaaaatacta acattcatgt 120
tacaacacat agcaaataat atataaaatg aagtttgaat agcaaatact agaaaaaaga 180
caaaatactg gtttacatgt atcaaaaagc gtatatattca taaaaaatgt atgggtgggtc 240
tagacagacc actccgaccg tttggagtat aaaaaagtta atatctttat aattatactt 300
ttgt 304

<210> 828

<211> 352

<212> DNA

<213> Ctenocephalides felis

<400> 828

```
acgggaagtt ccagcaatth gccttcaagc acgatnccat acatcactag ttttttttgt 60
ttatggggat atattacttt cgattattac taaaacaaca gntataaaac tttactattg 120
ctaatagaac gaatntttct gaaaaacgtg atatgggtta aacataggaa attatagtaa 180
attattcatg agagtatatc aataagtcaa taaatatttg tcttctgaat ctttttacat 240
tnggctctgg ttaaatttgc ttactaaata tagaattttt agctttataa tttatctata 300
ttcattanat ccggtccaaa ccataataaa tcagatttga tacaagatac gt 352
```

<210> 829

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 829

```
acgttgcaaa aattaagcaa atcaagacta cpgtatthac gaatatgtcc ccaattcgct 60
gcatacatat acacataccc gcacactagt gattcggtgt ctataaatat cgtgcgtcat 120
tgatagaaaa caagtgtatc tataagcttt gacattatat tacacaaatg atttatcgta 180
gatgaaataa aagaaacatc tgattctctc attactacca tattttatgg atatgggaat 240
aatggaaata agtaaaaaaa atcatatatt ttcttgctaa agagtagtca tttcaaactc 300
aattattagg gttaaaaatt aaaaagaaca tataccgtaa ttaggtcaca atattctgtg 360
gtcatcgcca aacttagtaa caccaaaaac accactaaat ttaagcataa ttgagaataa 420
aagactaaaa taattcaggt ctacttttcc taatgcgtga cactcacgga anacgttcaa 480
tgccatcaatg tgtgacttaa 500
```

<210> 830

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 830

```
ccctaaatct gtatcttaaa aacattttaag taatgcattt ttaatattht gacataaaatt 60
attaaagaat caatagthtt aatatataat atthgaccta gccaaaaacc agatattgtt 120
tatctgaatc caggtattgt agttggcttt ttottgtgat gtagthttatt acaagtcgtt 180
taaaaaattgt attggttagc taththtcaac aatcttattt gaaaatctgc tttgttagcg 240
aattacagag ttaaaactat tataththtca cttgaaggca taththtagat gaaaaaaatt 300
ttaggtgaaa gccaatatca gtaggggaga caatagatca cththtctct tataatthaat 360
gagtcatcat cacgagtagt thtggtataa atththththt gaaatcagtc aaaaatgtta 420
actactaatc atcagthttac taatcagcaa aatattcggt aaththaaatt atatactgag 480
actagtcgaa tcatcattat 500
```

<210> 831

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 831

```
aagaatatga acaaataagta gtagcaccag ttcaccctgg tttagatgta caggaagcac 60
aactaaatga agataatgag gatttcgcat caaggcgtcg ataccatcaa tcagctactg 120
tgcattggaca ttacgtaaac attgacggat agttgtttta attaatgac acctaataca 180
tatttgacca gtattgcaaa tttttgagtc acaaagctat tgatttagat ttttatatat 240
ccttataaaa gctattttcta tgggtataatt tatttaattt aacaaaaatt tgcaatatta 300
gcttgatttt taaaaagctg attaaaaattt attgtgaagt atctaattta ttaaaaaaaa 360
tctaataata tgaataatat agaaatgaat gaaaaccgac tcgagtgcag tcaacattac 420
tgataatgtg atttgatgca ttttgcttta ttaaaggota aattagttca aaaaggccag 480
tgtttaattt aatatttatc acttatttaa ttcaaataat taatcactcc agttgtatta 540
taaataatgt                                     550
```

<210> 832

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 832

```
gngtgctntt ggtgactgtg actgtactcg tactgtcaac atacttgaag tatgcagttt 60
catgcaaaact tctacattgt cattctcgaa cccaaatgac ttacctattg ttttctttta 120
gtaaaacaat gattgtgcta aattagcaaa agcgttcaaa ttttattatt ataattagga 180
actgttggtt ttagtgactg ttattatcca attctaataca aaaatgacag acacacctga 240
taatgcccga attactacca tgggtgaaga tgtttttgca ataacattaa acccagaaaa 300
atttggtggac tgtgaacaaa aaccagatta tattcaaatg atttatctag aagaactagc 360
agaaagtttg aagccgcaaa aacacattga cattgagact ttagaacaag ctctttttga 420
aagggttgatg ctaacaaata tcacagaatt tgtntaccaa aatccagtaa gccccatat 480
atagattatg tagttcagaa taaagcaatt tctattaaat ctgttatgaa agacttagaa 540
gtacatgctc                                     550
```

<210> 833

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 833

```
gnngctnttg aaacagatcc gaacaatoga tcgatcggag cagatttttt tttgataata 60
gtaataaatg tgtattgttg tggctgaagt ggattaaaat aaaattaata ggttgataat 120
aataataagt tttaaatttg aaggttatcc attacaatgt gtaaaatttt tttgctaaac 180
aaataattct agacccaaat ctaagtgcct atcatatagg cacggactat agacccaaaa 240
atacaaaatg tttccaaaac attatgattg ttcttaaaaa caaattgtgg acttttagtt 300
gaaaatgaaa tgtgatttaa aaattgtcgt ccaaaaaatat tggtagtagt gaatgttgat 360
tgccaaaaac agtagctgga aaatagtac aaaaacaaag gttttggtag tgtttttatt 420
tgcaaaatat tggcgtccag attgtgatga taaaattgat agttgagttg acatagttgt 480
```


<212> DNA

<213> Ctenocephalides felis

<400> 839

aaattgacga gtcaagaaga actactgcc a ttaaactata agaaatgtga aaattgttga 60
aaagcagtga cttttataaa atatcaacaa caattotgtg tgccatatgt gccaatataa 120
acttattttt gtatgtttgt atttaatat tttttaaaaa ttttagcgaca cgaaaaaata 180
agaagcaata ttattgatct aataaacagg ctgcttaaaa atacctctaa ctacattagt 240
gattaaatta taaatttagca attgcgaaa ctttttataa tactaacaaa gatattaatg 300
tggcagctga agtaaagat acatctggta gctaataaac tgtgatgatt atattttgct 360
tattacaaat gttattaaat tgtatattat tattaatgag taccaatttg taaataggaa 420
atatctttat tcagcaattg tgtggaaagc atagtcaatt ataaatatct ataaaattat 480
tgtattgtaa atctaagac taattataat aatgtatgaa tatgaagcaa tctataaatt 540
tgngcctcg 549

<210> 840

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 840

aatcggcacg aggttttaaag gtagtttatt aaatgtgagt ggtgttttaa tttattaaaa 60
ataacgatca aatctaagtt ttacaactat ggctgctgat gcaagaactt attcgatatg 120
tttgggtgta acttgtatgt ttgcttcgat tttgtcggcg tacgcacttc ttgtggaact 180
ttcggctgaa cttcatcctg atcaaccagc catgtgcgat attggtgaac atatgagttg 240
cagtagagtg ttgacatcca ggtatggcaa aggccttggga attgttggtc taatattagg 300
agaaaattca aaattcaacc aaccaacgg atttactggc attatcttct actccttcac 360
ttctacttta gctctcatag agaaacgttg gacagcaaaa attcaattag ctttaagttt 420
catatcgatt cttctctcaa tttatttggc atgtattcta tttttgtct tcacgatttg 480
nggtagtttg cgtaccattt acttttaa attaattc atacttccta taaaagacac 540
agttgtagc 549

<210> 841

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 841

ngtnncgcac cagatttggga tntncnctg tgagaacat ggangggcaa ttgatcangt 60
caacttgggtg ggttantata nggantacng catctacat nttcgccngt ttaanaagaa 120
cntggcttga gtgantantn aataacagnc taacctgcc ctacgangat gannaangcc 180
ntttcaantt cantgggagg aaggtancag acatatncnc ttttaannng aaagctggan 240
ntgaatgatn ngcatgaaat atgtaactgg cttacgtgac ctgttntact ancntaattg 300
ttatgcaaaa agcgtctttn ttatnaacng ncaacaagac ctttccntta tnnatntcac 360
tatagancaa ttttnngacn angacnatgt tgatttttct nnncanaccc tanannnnncn 420
ttngganaca ttntgtagnn tttnnnnnat gangncanaa ttcnngagtc gatgttctcc 480

antatgtttc aacgatttnt cctntacnta tncnnngnaa catttncagg nacaacctca 540
gnnangnnc 549

<210> 842
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 842
aaaaggatag cacagattgt gcaccagaga aggacagaag atcaggacaa cttggtggta 60
aagcagagtt aggaaaagat ttaccatgat ggtaaatggt tgatgaaagt ggtttgagtt 120
gttctgagaa caaggataaa ggataacagg gttggagcaa ttttttttgc gaggacaatg 180
atggttattc aagtcataatg ctacatcatt gttattcttt tttttgtctt cagccagaaa 240
aatgtaaaca aatcacgtga ccaatttact accaaataat ttttacaatt tctgccttcg 300
atttaaactt ttagccagga cacaacacct tagccaggac actaaagagc aatttttttg 360
cgaggacaat gatgattatt caattcacat cctacatcat cattgttatt catttttttg 420
cttttagcaa aaatgtaaac aaatccgtgc gattttacta ccaatttatt tttacaattt 480
ctgcctctac tgcgagatta acttttagca ggcacaacct ttaccagtca caaccggttg 540
aattttgaa 549

<210> 843
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 843
gcgaagagag ttagatcact gtagaagaca gatttcagaa cagtccggtc aaatatctcg 60
tttacaatct gagttaagta ttagccaaaa aaatgaagga caatatacaa caaaattagc 120
tacagctttg gaaacagttg aaaaaaatat ggcacggagc aataaaaggg caatagatgc 180
tgaaagtaca gttgcaaagc ttaagaaaca gatttcacaa atgacgtcag agatgatggt 240
tcttcgaaat gaaaatacat cactgcgcta tgggccagct gcaaatgatt ccaatagcat 300
gatgagatta tcaaatgagt tgcgaactgc agctagtact gcagagtcgt cactgaggca 360
actattaacg ggtgttgata atttaaggac tcttgtagtt ctttagaaaag ctctaaccga 420
atatttgaac cttctgatga caatttctgc gaaaatgaag atgaagatgc cggcctgact 480
ataatgtgta gtgaataaat ttntcattca aatgtcttgt attaaaataa atattctagt 540
ttatatgct 549

<210> 844
<211> 548
<212> DNA
<213> Ctenocephalides felis

<400> 844
aagcacgtga tataaaaatg aatatttgaa gttatgtggt atactcatat ctcaatttgt 60
atcgtgctta cgtccaagtg aattattgac tgatatgtct atagtggctt ctatcatatt 120

tagagtat ttt tgaagctttt gcggtatgaa gtaagtagca gtatgcggca ttctgggtcta 180
aagcaacttt ttacctcaaa acaacatttt acttcgactc tgactttgca gaactgaatg 240
gtgagtcaat gagcgaccca cgcttaacta gttaaggaaac gatgcaactt cgaataaaacg 300
caaaacgatg caaagtgagg tatgggtgtc tacatttgat gcgatataat ataataat ttt 360
gtacgtattc agaccgcacg tgaagagcta accgccaggc totgcgtctg gtgacgtcca 420
gcaaattgta gtgatatcaa tgtccgattc atcattaact ggctaccaga catctcgag 480
cagtctgaag gattaccagc atcactgact cacccaatcc ttgcgtcaca ccactctcat 540
tcaacogt 548

<210> 845

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 845

acgaactgaa atcaactatt aataaaatat acctgtatct tttacctgtg acggttctat 60
ttgtgttgta ttttgacaaa tacagtttct gtttgogatc gaattatata tattataacg 120
agaattgtgt cataagtaga agaagtttagc ggccaagatg tggcgattgt tgggagccgt 180
tcttgttctt tctgttgtca acagtcaagc ccaattcgag gaccagttct tgagttggag 240
gcgagatgta ggtgccaatc gtggaagcgt ttggcctgga ggctaccaa atgtttaccc 300
tcataaccag aggcattgtc ctaaaaaaac acacaaggaa gaagaggctg tcaactgaaag 360
ggaccgtgaa ccacttgagc ctcatcctaaa ttgggcaggc cgcagaacag ccgatacatc 420
cgacatcgaa caaatcgaga ctgttctctga attgctgaaa ccagtgcaga agatagtcgt 480
ctgatgtcga ttctgtgtgc cttctctcct tggaggactc ggaggatttc tgtgacaatg 540
gcatactct 549

<210> 846

<211> 481

<212> DNA

<213> Ctenocephalides felis

<400> 846

ataaagctta attat tttttt gggaaaataa gtctctacgg ccacagtagt tttat tttgtt 60
gctgtgagca gtttatcttt atactattga gtgttttagaa aaatcacaa taagtacataa 120
aagccataga ttctactttg atagtgttga tgtagcttga taattttcat taatcaaaat 180
cagattaaat tttgogaacg cgggtgtgtta gtaaattgac ttcatattga tatggaatcc 240
aaagaatata aaaattaaac atagaaaagc aaaatttggg tagtctttaa attatctgaa 300
acaatagtta gtgttttgtt gtttaataga aatgttagat aaaatgaaat acgaaattag 360
tattataaaa ttgatgaaaa tttttatgtt gatataattg ggaactataa atgtgctaaa 420
ggtgtaaact attgtatgta catgtgcaag atgttaaata aatagtatca ttgtnaaaaa 480
a 481

<210> 847

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 847

gaagatgtcg tggaagacaa agctacattg cggaagctg tactgaaaac ttgggcacaa 60
ctagttggcg gttgtctgat atttcgttat gtacaattat tttgggtattt ggagctttct 120
ccaacgcata caggaagagc atttgaaaac tgcacggctg atttacaggc atctcctatg 180
ctaggaacgg caatagaagg aattgccacg tgcctatgcc ggctgacgtc gaaagtgatc 240
tctcatcacg aaccagatt tgcgcggcc ttagattcct ttgtaggac ggcaattgtt 300
gtggctgctt ttaattactc ggggtggatat ttcaatccag ttctagccac atctttaaaa 360
ttcggctgca tgggacattc cgcttgggaa cacgtgattg tgtactgggt cggtgcttgc 420
gccggacact tgcagcagtt gcgttgtgga ggattcccaa attagaaata gactaatcgg 480
tcgaaactaa aatcagcgta atcaaagcat tagtcatatc gatcaaaca atatacaaaa 540
ataagaaa 548

<210> 848

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 848

gaaactacaa aatagtgtc aacacaatga actccttcgt tacaactgtt gccatcgtcc 60
tccttgcagg aacttgcgcc caaggtgcaa caactgtgtc ctctctacc aatggcaatt 120
accacggcaa ctatggatac ccattctgtc tatcccaagg tttcaacaat ttcaactcat 180
tccaactac ttacgatcac tacaacactg gagtagtga tactgttggt tcttctccc 240
tcgttaaate ttcatcaca acaactcctg ttgttgatac cgttggttct actccagtcg 300
tcaaatccac tccagttgtt gcaactccag ttgttgaaac tgttgccaca ccagttgttg 360
caaccaccgg ttataaccac ccagttgtcg caaccaccgg ttacaccact actggctaca 420
ccactccagc tgtatcgact ggatacaca ccaactggata taccactcca gcagttgctt 480
ccactggata tactggttgg gaagtatcgt ntggtttggg aggatacgt ttacacatct 540
attcaagga 549

<210> 849

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 849

ggtaaatcta gtaattattc gaagaattta gcaaaataat aatttttgac aaaatggcgg 60
cttcttaaaa aaatcgtttt ttggcgaaat tttaacctta aattgtttat aaaaataaaa 120
gtatttatcg gatcgcgaaa atctttgatt aaccaactaaa aaatatattc tatgcaaate 180
ctattattat aaattattat aagactgttc aaaatgttta taatatgaaa atataagaga 240
ctctccaccg attcggaaac ttctaataac tccaaccggg gttgtctgca tcccttcttc 300
tatctcaact tctttttcgg catatgaatt aagaaaacac tgttataaaa tttagaaagc 360
aataactaaac agtcgaatca catgcaacta aaatttcctg ttgtttatta agttttttcg 420
cggatacttc ttocatctca gccgtntttt cttttcaaat tgogaacttg aaatatcc 480
agaatgaggg aaatttctgt gtgcatttta aatatatgac atcagaaatc ttttttggaa 540

actactgtt

549

<210> 850

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 850

cncgcttatt gcattctctaa caaattcgc aataataatc aatttagtaa ttaaaaaaaaa 60
acaattgcac taaaatcaat tcaataaaca ttacgaaac gcgaattctt ttaatcctta 120
gtgtgtgtgt ctgtgtacaa taattcttgt taacaattac ttattattgt gaacaataaa 180
ataataagag ttaatatataa ctttttggtt caaatagttt aaaacaattc taattaaata 240
atttgtctcg tctatcggg taacactatc aaggaatgct ttgcacaaac ttcacgatgg 300
tgctggtgct ggtggtcgt atggtgacgg tgttgccaga tgggtggtgac ggttcgccgt 360
ttcttgatcg attgttttcg gggtagcgat tggcagcagc ctcttcgaaa caaatcacag 420
gccacaaaac atccggaaca gctacgccc gagctcggca accggagatc gtcgaacggc 480
ccggaggcgg cgaacttaca aacagatttg caatgctata aatccaagcc cctacgcagc 540
cctggagcg 549

<210> 851

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 851

gaacaggaga tnttgaagc ancactnatc atatggacat gtgggtccag gagaagtctg 60
cngngtgatt taaaagtgg gctccanaga atttgtanga gctggcnaca cgccccangc 120
tgcccgccac gatgtgctt ctaaagctct tgaggaattg aagaatcttc ccatgccaga 180
tggaacatgt cctgctgtgc aaggcgatca tgtaactgnt ccaatggagg atgatccana 240
ttctgaatta aaatcaccta tatctcttgt tcatgagatc gctttgaaga gaagtntagc 300
tgnacacttc gcagtatcca gtgaanaggg tccaccacat atgaaagttt ttgtcacaat 360
ttgtaaagta ggtgatnngc aaactgangg agaaggcccg gacnaaaggt atcaaaganc 420
gtgctgcaga ataaatgctt gaggaactca caaactngtc cgattatact aaacagacct 480
gtggagcccc tntgtgcgta ctagaatnaa acgcnacctc tgtccaagan nagnaagaaa 540
tctgtaaag 549

<210> 852

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 852

aatacatttg atactcaacc cataacttcc ataaaattta tacatttttc tatatcgacc 60
taaaacagtt gagtagacgt ggaaaaaaca tcttttagta cttatgagta gatattgttg 120
gtaacaacta aaatctaacc aatgccatta tcaattgaat ttatacgaat gactttggat 180

tttgaaaaca gtgaataaaa atttatagtt ataaaaatcaa caccttttaa attttgatat 240
 ttgtcaataa aataggcgat aaggatattt tatctgtctt atgagtatct atatcaaaaa 300
 atattccaaa aaccactttt ggaattttga tatttgtcaa taaaattatt attaagttaa 360
 ctatttactg gcatttttat taagttatta ttttatgcag acatgtaaat taaaacgatt 420
 ttagcaaaaat attgttgtgc attacatatc ataagattaa tattgtttaa aatgagtttt 480
 actgagaata aataactttg aagcataatg tttattatct caaacattat ctgggtaatt 540
 atatttctc 549

<210> 853

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 853

ctggatacca tcatttttagt tatgtattca taaaaaatca tatttattga cgaactgtat 60
 tgttgatagt aacgttagct agcacgatat caagcaaaaat tgaggtaatg aagcagattt 120
 tcctttgggt tttcatattg taggattgag ttcacccaaa tctatatcaa attatttatt 180
 agtatttttc gtagtctttg aaagacgaat ttggaataga tttatattta aatgaagtga 240
 agagaagttt tttgattgcc ttgattgttg aaatcaaaaag ctttctccaa ctagtgagtc 300
 ctatattaaa tctgtttaat tgtccaatat ttatattttg aactgtcata caaccttcat 360
 atttttctac ttcacttgaa atttatggaa aatatgattt taaatgaaaa ttacttttta 420
 ggatgccgcg attaaaaatc gattgaaatc tactctctca attttttatt atgtatatat 480
 ttacttcttg acggagttct atattcaatt cctatgaatc aaaaagttaa tatcaagctt 540
 tttataga 548

<210> 854

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 854

gcataatgat aatccacatg tagaaaaaca aattgttgag ttaatatatg atgccgtact 60
 atttgaaaac ttgtcaaaaa attataaaaa taccgcattg tggcaagaaa tttttgtttt 120
 gccattctac tccctatata aggagaattt gataaaccta atagacattt tacatataga 180
 tacaagatat gcaattgaaa ataaattaca ccaagcagcc agggcaaagg cactgtattg 240
 gactcatgca ctttattatt ttgagaagga gttaaagtac togtcaaatt ctccaacgct 300
 actaagtttt gatgtagaaa aattatataa aagggttctt tgtaaagaga attcagatac 360
 aaccgatctt ggctggatac atatcacaca gatattcaaa aatttaccog cagaatgcat 420
 atctgtaaaa tttgatggca aaatgattca tggataagtt ccgctggaac caactgtgcc 480
 gccagatgta tgtcagagtc cgaattacgc gatgattctg tactcnccgt cgagataatg 540
 atgtctctg 549

<210> 855

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 855

gctatcagtc cacctaaaag caaaaccagc ccattaagtg tgtcttcaaa aggaagggcc 60
atagattttt caaatcagtt tgacgttggc gaaaagcaga aaacaaaaat agacgacatg 120
aatgacatga tgtcgacaaa aaacatcatc gccgataagg ataaaaacgaa aatcgacagc 180
aaaggtcttg atgatgtaag catggatgat gacgatgacg acgatgtgat atcagcaggc 240
gacgtttcga aaagtaaatc agaacaatca ctggctcgaa aaccaatact gaccacaaat 300
gattcgccaa atatgcaagt gcattgtatc ttcaatggaa caacatataa gccaggacat 360
tcgttagata aacactgtga aggcatgtgc aaatgttccg aagaaggtct ttggagatgt 420
gagcccaggt gtgaagctct tatgtcaca gactcctgat ggcaccctaa atgatgtcac 480
caccaaaaat gaaaggggtg ccgcgaaatg gccaccaac aannatgctg cctgtctggg 540
tggcancgt 549

<210> 856

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 856

acaaccagaa atattgcttt cgattaaaat taaatatata ataaaaaag aaattgattt 60
tcttgtattt taattactaa aaatgaattt tagcatggat tttaaaagaa atgaattaca 120
aatttgtaat ggatgtattt aagcagctaa ttcgttgaac taaaaatgaa aaaccaattt 180
ttgtcttctt catttatata tgtcttgact cttgatattt gtcatcattc tcaatctaaa 240
ttataatttg ttttgcacaa tgaatacaat tataaacata ttataacatt tagttgaaac 300
tacttactac tacaaacata actattatth taaaataaaa tatgaatatt ttaaaatagt 360
aattgttgct ctgtttttcg ttaattaaat ttttcacatt gaaaaaatat ttgccattta 420
tattttaaatt atgatttttt aaaagtaatg tgtaatttta ttgtattatt tgaatataaa 480
tttattgaat gatgcacata tcagngtcaa ancgcgtaag agatcaaaat tatctgcatt 540
taaatctga 549

<210> 857

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 857

attagcagaa agctgcaaga tgttcataac taacatggaa ataaaatata gtatagagag 60
tattgtcatg gatatgtata tatgtcttac acaatgtata gataatttaa catgcaaaga 120
ctcacagaca cctattcaac tgtgtcacgc gttcaaaaat ggaatgaaag aaattgcaat 180
agcttgtgct cattttctag aactctgttt agatttataa atcaactgca acaatttgca 240
tacattggac agacatgcaa tattacgata tgcttttaat ttatttccta catttgtcaa 300
attattatac aagggtctaa aatgtgcatg ggactcgttc aaaacattat caccttctca 360
taaacaagag ctgcgtcagt atgttattcc tgagggtcagt taaaatatag ttgaagcaga 420
gtcaacatct gaaggccaag ccggtcgaaa gttatttctc gaaataaatg tgattatgga 480
tataatgagt tgctatattg aaatactcac agcaaaaattc ttattaatgc tctatggaat 540

<210> 858

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 858

```

gttgcggtgta aattgagtat gtcataagacc ttattataat atacattatt ttgtaattta 60
catattatta aaatattcat atgtattaca taagatcttt tgtggtgagt gcgtatgttg 120
tatgtatgaa tatcaagagc ttgggtcaac cgatttgaat gattctaaaa tagaaaatgt 180
agaaatatgt agatagtggg gtgtgggtat ctatgtacgt atgtgcggat acaatgtttt 240
gtcgactttt tcaagagctt ggctcaaccg atttgaatca ttctagaaac attttacttg 300
atagaaagat gtaaatagtgt gtgtgtgtat atttatgtat gtatgtgcgg atacaatctt 360
ttgtcgacga tttcaagagc ttgggtcaac cgatttggat cattctaaaa acattttact 420
tgatagaaag atgtaaatag tgatgtggta tatctatgta tgtatgccgg attaactctt 480
tgtcgcggtt caagagcttg gcgcaccgtt tggatgatct aaaacattta cttgtagaaa 540
gatgtcata                                     549

```

<210> 859

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 859

```

gagaccactt tcattgtatt cttcagacta ttcttcagac ctacctctca cctactctac 60
ggttcaactca gtgcctctct atggagcccc cctggtacac agaagtgtca tcgttcaacg 120
acctgtgtcg gtgtacacac catccccgat gtccgtgggt attcgcacca ggccatcagt 180
cctggaccgt gaattcgacc gcatccaaag gcgcgtcagg cccaccacct acaaaccagt 240
agaagatttc ttaaacagca gcagcacatt ggactttgac gatgaaacaa gaaaaatccg 300
atctcaagca aactcacttt tgactagaat acacactccc gtacatagac cattgaaaac 360
gatattcttc agtactgctg gaggatacgg atcaataact ccttcttacc ctcatgttga 420
ggaggaatta tcccacatct tccaacctct gagcaactac cgcaaaaata tcggcctggg 480
catttggcat gcgtacgatc cgcagcgaca agcctcaaca agangaatct actaccagaa 540
gnggaaaat                                     549

```

<210> 860

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 860

```

aatctacgta ctttcaactaa attggaaaac atgaaagtaa aatattaagc gagttttgta 60
aaaatctaga attaaaattt ttctaagtga atttagtaat aagtataaac atgaagagaa 120
actaaaaaat gccccttaat tttaggaatt ataaaatgta attaatgtga ttgaataatt 180

```

tttatataaa aaagctaact aaataactgt agtagatatt attagaactt taagatgtca 240
 atcactcgaa attatgatgc aaatgtatgt aacaataaga atgatatccg acgttttgtt 300
 ttctaaaaat ttgcatcatg atttcaacat ttgacgtaag tgataaaaaa ttcctaatta 360
 ttcaattact gctaattaga aaagagaatt ctcaaacatt gctttttccg ataggcaaaa 420
 catttttctt ttgcaaagct tagatgattt tttaatggac agatgttaat catttctagt 480
 cgtaaacgat aaacgaaata tttcaaataa tttgtattcn ttaagaaaag tcaatataat 540
 gnaattcaa 549

<210> 861

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 861

atagaagcaa aagacatcaa gatgaaattg gcgattgtat ttttggtttt ggcagtagtt 60
 gccttggtt tagctggtga agcaaagcaa aatcagcgta aacatgggca gaggtcactt 120
 caaatgctg gacacaaagg agctgcaagg aagcaaaaata atcatagtgc atcagccaaa 180
 tttttgtcca ggaatcgacg agccaatcga aatgaagagg caacagcaaa tgaggctgtt 240
 catgatatag atcgtgaacc agaacatgaa ggagggtctg aacctgtaga agatcccgat 300
 catgaagtag tcattgatgg tgatgtagaa gatcatgaat ctggtgtcga cggatattct 360
 acaaataatg attatagtac ttacaacgca gaaagtacga atgatgctat tgaagcagca 420
 aaaaagctc tgaacaaagc cattgcctct tcaaacaagc tcgtaaagct ttggaccagt 480
 tggcgaagaa ccttgactta gacgtgcagt tttgaccatg taagttctgg aaaatcaaaa 540
 gatcaacaa 549

<210> 862

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 862

atactattta tcattagatc atatggttat aatagaaaat ttaatttttt atactaattc 60
 ttgtttttca caataatttg aagaattctc ttcctttaag tatgtattta actttatata 120
 caactttgat gatataagaa aatcatgctc tttttattta aatctttagt tataacgcgt 180
 tttttttatt accttaatta tatttaagag ttttacattt attagatgtt ttttggaact 240
 aggacttgcc aaaataaaaaa tcttattctg cattttccaa gatttcagaa taaatttttc 300
 tgaaagctga taaatgttca ataataataa taccaagcag tccttttccc aaataattta 360
 gtaaataatat atttgttgta aataataatt gtgttaaact ataacttttt tttctattga 420
 ggttgtgcaa tgtcaaggac atccaattcc agcaaattcg taaagattct ggcgcatttg 480
 atttgtattt tatntattgt attatattct attgaattaa taataaatgt ttatgggtatc 540
 gatngggcg 549

<210> 863

<211> 87

<212> DNA

<213> Ctenocephalides felis

<400> 863

cacctcgggtg gtgaaagggc agagcaccac gctgaccgtg gccttccagc cggagggcgt 60
aaccgacaag agagagagag aactagt 87

<210> 864

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 864

cattactcca gtgccaatth taaaacaaat aaatagacac aacgaagatg gaagttattc 60
atacggatac gaagccgccc atggttcctt caaaatagaa tccaaatatt ccacaggaga 120
agtatatgga aaatacgggtt atattgatga ccaaggacaa ctgagagagg tggagtattg 180
agcgaccagt ggaagaggtt tgaacccggc aggaaccggt ataaaagtcc caccaccaac 240
tgtcaacact aaaaacgaat actaccacac cttgaaacca ggcgaagaag atgacggcca 300
atacagagaa gacccagca tttattacaa agatttctgt tacaacagcg atgtgagcaa 360
cagtttgcaa caacaacaac cccaacctca atacattcaa cctcaacctt aaccaagtgc 420
tgcaccatcg tacgctgtcc tcaaagaaag aacttctact ttatcaacaa tgcctccctg 480
ctccagtttc ggaagaccaa aagaagattc taccagctaa gtctcagcta acagcaatat 540
taccacctc 549

<210> 865

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 865

agtgtacgat gtggtgctca acatgatttg aatacggata actgatcatc ttatggatct 60
tatggatatc tcatacatga acatatatca atgataatgg caactaattc atcggaacct 120
acggttcgac ggaatcggtt ttcacggtcg tctacgacca gtgtgacgca actgttatct 180
gaaagttggt cgagccttct tcatcggttg acacggcgtg gaccatcgga aaagcccacc 240
taccgctgac ggccaagcaa caggcccgaa gaaaaaccga tagatactgt gaaagtttct 300
agtaaaatat caaccgcccgt tcctgtgaca attacctctg ccttgggaag taccagaagc 360
cggcttgaaa gcaaattattc agcagtgtta gaccgtgtaa aacgtcggga agttatagat 420
catgataaga cattagaacc cagtccattc gtaccacagg cgcaaaaaaa gtgcatcgag 480
tgnatttttag gtgaaaaggc ttatcctatg gagtgcatta gaaccaaagt nttattggat 540
cgcgatgat 549

<210> 866

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 866

```

agttgctatc agttaatagc tgtaactcaa acatcacaca acgtaaataa aacaaatcct 60
tatcttgtcg tgatatcaca attcattttt catttttcac atatcttaac agaataataat 120
agtacgttcg gatgttccag tttatttgca cgtggaccgg tgaccgttat agataagaga 180
gataattgac agtgaacagt ttttatgaag tgtttaggat attgagtgca cttttcgttt 240
tgttttggat tttgatggac gttggattat ctgtgattta gtcagagaat gatatatgtg 300
cttgaagtca cagaagatta ttagcacaca tgtatttggg tactctgcag atagaatagt 360
cttcagtatt ttgataacta aagagccata tatttcaaat gtaaaatatt atctatacat 420
tcttttcaag ttgtgtctta gttttcttgc agtagtgctc tttttatgaa gatcttttaa 480
tttagocctg tcgtctatca gtttgtggat ttgatgccga acaaggggtg ctgaagagag 540
tcgagacnt 549

```

<210> 867

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 867

```

gaggagtcgg tccttttagcc tgggggtacag aaacacatcg aaaaccgcag acgcttccac 60
caaatctgag tccaaaattc ttccatagat cgccaagaga agcattgaga agagtcacta 120
gtctattgat caggaaaggg gcagctgggtg gaggcacgcc ccgtgactcg cgtaaagaac 180
gcgagggcag cgtgttcccc atgccgcttg gacaaacggt gcatagggaa gcttttagagg 240
aagtggtgcc taaacaaaga agaggatttt tgaaaaactt ttttaagaaa tctaaacatt 300
actcactgga ccagtaaata atcgaaaagt tgacaattta ccgagttcta tgttttttag 360
gcataagaaa atatgtacac tgccctcaac tttagtctta accataatat tagcattgaa 420
tactactgta gttaccggtt tagttgtagg attatttatt attctaataa tgaattacaa 480
ttaaccgtct gatatggacg aanggggaagt aagacagttg caataaatag tgcctgagaa 540
atacathtt 549

```

<210> 868

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 868

```

gtacgaaagg accacgcctt ttgttataac atgacattaa gactcaggta gcttaaataa 60
taatttttta attctataag tatcatatta taggccagaa acagcatggt atatatttat 120
atccgaaata ataagtagat ttatataga acagacaagt gtatccaagg aaataaattt 180
aattttattta tattattaat ggtaatttat caaaattcag atatatatat atatatatat 240
atatatatat atatatttta aattaaaaca gcatatgtaa gtatatatat atgccatatg 300
cccattnaat tcagagctat ttaattgatt gatgagtact taatcatttt tttgtcgaaa 360
ttgtttttaga ttttttatat ttattagtat aattgggtata ttatcaaaat attatactta 420
taccaatctg ttttatattt ttttcatgaa atatttatatt ttattatgaa attattttta 480
gcgttaaaat tatttaaata tttcatacag aggcagcgtt attgaaaact gcttttttgt 540
atcttgtac 549

```

```
<210> 869
<211> 549
<212> DNA
<213> Ctenocephalides felis
```

<400> 869						
cgcggtggcg	gcgcgtctag	aactagtgga	tcccccgggc	tgcagggtga	gattaaatcg	60
tggacatcag	atcaaccacc	ggacactttt	acagaactag	ccgtaattga	ttcaacgacc	120
aataaaggag	caagaaggca	aataaaccaa	aaagatggca	acctatccaa	agcttgtcaa	180
taagcaattc	aattcaccaa	ttaaactgta	ttctccgcag	aacgttcagg	aaacgctcaa	240
caagcaaact	cagttgttag	ccaatggagc	agttggaatc	gacttcatgc	acaacaagaa	300
cgtggataag	ccaggcaact	tagcaaattc	agctgtcttg	agaatgcttg	aagaagaaga	360
agaaagacaa	cgaaaaggac	aaccaccaag	tttgaaaaga	gttgacctggc	caccaccagc	420
tgaacctgac	catcaatcag	gaactccaat	tttggaacaa	gagcctgtct	tcgctcagac	480
gcaacctccg	aattattcga	cttcaccgca	cagcaacagt	atcagccgaa	cccacgcaag	540
ccttccgcc						549

<400> 870						
gctcggttaa	cttatatctg	aaggctcctt	gacagttggt	agtaattaaa	totaatatat	60
tatagaataa	ggtgggttgt	gcgggttcagc	aatgggtatca	cgctttaccg	acatccttat	120
acaataaaaa	ggggccatct	cacaattgca	attatataac	tagttactaa	gaatttgaat	180
attatatatc	atagttttat	tatgaaattg	gataacttta	tacaaagatt	ataagattac	240
tttataaata	tacatatatt	taggataaag	ttttttatga	aatgaagggc	tagttgattt	300
ctttggtttg	agatatgagc	cattttgtgat	ttctggtagt	aggctaggcc	agtttgtctg	360
tatgccaggc	agataattat	aatgaaatgt	aacttcaaag	gacttccata	ctctgaagaa	420
tcacgagttt	aatttttttaa	tatttttttgt	acgtgtttgc	aataacttct	ttaaaattga	480
cattcaatgt	aaaaacagag	aatagtcctta	tataagtatg	atttgagtgg	ctccttattt	540
atatgaatt						549

<400> 871

gctcatttga	ctgaacgaga	aaagctatat	atttatacca	tccattatac	ggtggatgcg	60
tagtgagct	ttacaaagac	ttaaacaatt	attagtgaac	aaacaatgtg	aaattaaaga	120
ctttgcgata	tacgaatatt	taatgccttt	tcttacagaa	catttttaaac	aattgaattt	180
tattgaatga	atcactctga	ttatttgata	ttgtgagatt	tggaaaacat	aaattcacta	240
aatgtatata	tgaatgggac	cgtcactttg	atagattaac	gagaagttat	taattatacc	300

gaaaagaaat aattgtgtgt tttcttagta acatttgitt ttcgttctcg tgcttcactc 360
gaaataaatac atctagaaat tttcatgaag cgaactgtgg tgaattgttt tcgtgatatt 420
tgtgatgaac ttctcgtaag gacatatcac gttgtatttt ctagtgcatt ttgaatctat 480
ttaaagttat tatatttata gcaagtaggc acatgacgat agcaatgttt attattatac 540
tcttagaaa 549

<210> 872

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 872

gtgttcgata gatcacatag gcaattttgt tattagtggg atagtttgat agttttccat 60
atggtttagt gtgtgataaa tcaatattta aatttcaagt gtttgtgtga tatatgtgat 120
tagaatacat cgatttgata aagtgatttg ggatcgtttg ggtgcatctc atatgcatta 180
attaaatata aggattgaaa gattttgtat agcttttagta gtaaaacagc ttagtttgga 240
ggcagattat gaattctcat gagaagtttt aatgaggtga cgagtaatca tatagcaagt 300
attgacatta ttacatatct ctcaaaagga ctaataaggt aatcatctaa ttgataccta 360
agtgtgaaat aaatttagta tgttgtggtt tagaatttta aaggatccta cttgaaaatt 420
atgatacaaaa ggtgaatgtt gccagtttgt tatatgccgn nttaaatcac gtaatccac 480
tccccactct ttaagaacaa tacctcaata ttcattgtta cgcacgataa atagcagcag 540
ctantcacc 549

<210> 873

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 873

gagaaatgtc aaagtgggta atggaattat taaagttaag ttcgaagata aatttagtaa 60
aaaggtcagt gtttagcatta tatcctatca aacaataaac gaattagtaa atatcgaagc 120
atacttatta ttatacactt agacttctca attttttaaag aactcatcat ctgtttgttt 180
attataacct acaaacctca aacatgtctg aagaaacaga ttttaacaaa acaattaaaa 240
cggaaccgat cgatgattat cctcaagtga aacaggaatt cgatgattgt gaaaatacat 300
cagatttgta tatggatgat gatatatgtc tgcagcaatt tgaaaaatct gaggttacia 360
ttgacgagga aataaaacaa gagacgattg atgaccaaga tcatgtgact agtaciaaaca 420
aactgttcag atgaaaattc ttatattgtg atgaagaggc agtaattcaa gnaattagt 480
gtagtacgaa caaattattg gaaaagttca ggcaaaangg aaccactaat aattggaacc 540
gnttctgtn 549

<210> 874

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 874

```

agtacgggat gtttcaataa tttgtcttaa ggcacaatgc catgagtcac tagtttaaaa 60
ttttttcgac gctataagca caaatattgt gcacttccac acaaattcgt cattttaaga 120
gggctcgaga actgaagtaa atatttttct taaactttca gcttgtttac ggaaatttat 180
attagccaaa ttgccaaatt taataactta gtaaccaatt tgataattta cgttcggaga 240
gggaggcaag gcaaaaataat aaattttaat aatcggttat ttcaacccaa attttgcctt 300
gcaatcgtat tatgttttgt taattatatt tcttgaaata taaaaatgtt ggtaaaaaaa 360
tttgattaca ttgtatagaa tttttttctc actatccaaa ttttgccgcc ccaaaaattt 420
gccgcctggc agtagcccg attgccctct gaaatccagc ctggatgngg atatgnatat 480
atatatatat atatatatat atatatatat gaaatgcggn gcccatatat natngggttc 540
attacaaaa

```

<210> 875

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 875

```

gcggttgcgtc atacgttaga aatgacaaag ttttacaat tcataagatt taaatgaaac 60
cgttttctcat ttctgtttct tttacaaacc gtgtgctcga tttatgtagt ttttgcccaa 120
gtactactgt ctaagacgca cgccggatat atttcatctc ataattttta tttgcatcat 180
ttggtgccca ctgttatata aaactaaata atattatttc tttgactaag caagagttca 240
caattgaatg gctggcgcgtc gctgtgttat tttatttcga gacttattgt gcaggaaatc 300
aagatgaaat cacatggagg ccacaatata tcatatcaag ttgttgagta tcgaatggcc 360
aaatatcgag tgaaaattgc acaccgctcc ttcaccggga attgctctga aaataattta 420
tgaagtcttt cactactgct gtctgacact gctcttcacc aggaatcttt ccagaacatt 480
ttaccagctt ttactactg nttnttttca ctgncccttc ccagaatcgt ctgaaatatt 540
taaaaaagt

```

<210> 876

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 876

```

gatgaagtga atacacaact tgataatagc aagaagttat ggggtataga gatattgcca 60
aaaacaaaaa ataatgtcag aaagaatttt gaaaatgcct taggaattgt aacactgaca 120
tttttatctt gtatagtatt aagaaaggtg ttttaagatt tgtaagctaa tatagccata 180
tatttccata ccttgaaggg tatttattat aatataattt atatcgttag tcaaaacttat 240
gtatacagat aaatttcaca ttatctatta cattttgttt tgttttgtat tatagtcaca 300
tgtgaaaaat atataatatt aaatttgatt tcattttgcc tgtttattgg ttttgcaaaa 360
aaatcctgta cctaaaatca taataggttt cgaaatcaca tacttagctt agagtaatga 420
acttattaaa gaaagaaaaa agctgngtta cttatgggct aatatacgng ngcaaatgta 480
aancccaaaa agntttgctg gaacaattgg ggtgatgnat catgtataaa natatagttt 540
tgaaaaancn

```

<210> 877
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 877
 gtccgtctgt caaagtacat cagttaacct caaagatata cttcaaaaag acattaaatt 60
 gttatgaaca attatatgtt taagttaaac atctgatatg tataagcaat tttttgaact 120
 cgattaaata caataagctg gtacacaatt cagtacttca aaaataagat gaataaatga 180
 actggttaaa aatgagaagt aaattgtgac tctttgaata tgtttaacgac cgagtgtctca 240
 ccccgttcag tcgatgtgct catcttaaaa tctgctaatt gctataaatt aagttaacta 300
 tagtatgaaa gatctaaaga gttacaaata agagataatg tctgtcgtgg gagaaagacc 360
 atcatcaatg atggtgtcat gacatcatct ggtattggaa atccaagtgt ttaccatgcc 420
 ctatagtgat attttttagaa ttttttgctt gggggctcct acgatgccaa taatatctgt 480
 ctaaagtaaa cattcccagt catcattttt atgaatggtt aattaatggt ataaangatt 540
 tatcttcta 549

<210> 878
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 878
 aaaaaataga gatatttata ataatagtaa caatataata aattctaaaa atgttcagtg 60
 taatgttatc agtatgtaca agcatagctc gagcaaatgc aatatcaacg aatttaaata 120
 aattaagtaa taagagatct ttocatgaat catgtgttac ttttgctgct agaaaaaggt 180
 accagagaaa aggacgaaa gaagaaagga gttaaagtcg aagaaaaaaa agttggtttc 240
 atcccacata atattcgtgc caaaaataag ttagccgtga gcacaataga caagcatttc 300
 aatgatagct acaaacatgt ttcaagcgac aatgttttca tctctaagtt ttacaaaatg 360
 aaagtttacg attttgcaga agcaatagct gctcataggg aaacacatca tcctacgtgt 420
 acaatgttcc agatgcaaat ctaaagtgtt aaattgacta aacatggctg gtggaaaagt 480
 acccgattat ggataatttc acgantgcat gtaccctcgc ttcgtccaat gtgaaagact 540
 ntctngatc 549

<210> 879
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 879
 atctttaagt catatttggt gccagtttaa ctatagttat atataaatat ataaccaaaa 60
 taattgtgat acttcatgcc tticattaca actgatataa aaattaattt gogtctaatt 120
 tgaagtcaac attaagttaa atagttatta gtctaaaact catgaaaaag tatagggttc 180
 ccattatctg catcaattct ataaatggta tggaaaatga agcttttaaaa tgattgagtc 240
 aaatttgcac tgtaaaaaag aaatgtcgtc ttacatccat atcttcatat ttgacaaaac 300

<400> 882

```
gttnaaatgg cgcctattct aaaagaagta aagtctcgta aacottacat actcttgtca 60
gctcgtagga agcgtgaaat agcacatgaa gctaaaaagg aattttttaca atacottaat 120
gccaaagcatc cactgttttac tgagaaggat ttggatgtta ccatttgttg ctccagtaca 180
agtgttgaag acgtcgagaa gaattttatat cacacaacac gtgtaaacgt caaacatcaa 240
agacctttta atagcattaa tgaagaacaa agctttgtgc tttgtgataa tgaagaaaat 300
gtagaagaac ctctttacac acgtgtaaac gttaaacgtc aaagaccttt taatagcatt 360
aatgaagaac aaagctttgt gctttgtgat aatgaagaaa atgtgggaga accttcttcc 420
ctctcacctt tgcaatgcga actacagaat ctgttaatac ccaaactatg acgccagagt 480
gtcaactaaa ttgtggaaat tctgaggcgc atggcataag aatgaactcc agtagatcta 540
cacatatgc 549
```

<210> 883

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 883

```
gttggccgtt gtgaggttat cgtgtgcctt gaatcgctcg aatctaagct ccacgtgct 60
aattatttcg ataactcca ccccgactgg gacatctcga gagtcgggaa gcccctggca 120
aaggctacgg cgattttgtt taaatcagtg tctacagttg aacgggtcca cttggacggg 180
aaacagtggt catacgagat tattatatat ttaaaattga ttgaaacagt gacaaagtga 240
tatagtaaaa tattttacta actgttctta aggattcgaa tcataagatt tctttacatg 300
atggctgaaa tgaccgccag cacgcgcttc aaacaataac accaatcatt ctccaccaca 360
agtgaacaaa ttgtgaaata aaacttgatt ttattccaat catataaact ttaaatacag 420
tgcaactaat caaaataatt tgtcggaat tgtaaaatac ctaagtgtcg ataagtctat 480
atgtgatcag gctaaagcct tgaaaaagaa tcttagtagg aatattagta ttcgtattaa 540
ttaattaat 549
```

<210> 884

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 884

```
gctactccta accaaaaaac acatttttga taagttcggt agtggttctt gtcggatttt 60
aatttttaat tcaatcttac atttgcaggg tcaaataatt taactatttt tatttaatac 120
agattctaac gataatcttt tattttgtaa tatgtctgaa gaaggaacaa cgagaagaac 180
tacgaggctg cttgccaggc ggctgagtag tgattcaata tcgcctccag ctgcagggac 240
tcctggcaaa aaagcgaggc cttcaagagt tacgggggtg ccgtctattg cagaaactaa 300
accgaaagca gttagcactc gtaaattccc aagattaagt actgacttaa atttagaaga 360
acctggaagc agaccatcaa cacctatata aactgaaagg cgtcgttctc gccgactaag 420
tattgcttag atgaacaacg cccacaatct gtatcaactc tcccattggg ggagttatac 480
aagaagagga agacatcaat attttagcaa tgaaagatga tataaataat aaatccggta 540
tgngtgtgn 549
```

<210> 885
 <211> 496
 <212> DNA
 <213> Ctenocephalides felis

<400> 885
 agttacagct cctgttaatg ctttagctga aacaagtcaa acttcatcaa tatttggtgg 60
 tgctaaacca cgggaagaac ccactgagaa ataagttatc aagttttaac attaattatt 120
 aaccaccata tagaatacca tcttgaatca tgtaataatt ttctgattaa aaattctgca 180
 aaactcataa caggcgctga taatcttaact cttgcaataa attctttaac tgatatataa 240
 aatgtatcaa gttttgtaaa agaaaaatca ataattattg atttacagaa taaaatattt 300
 attttgttta aaaattgact aatactttgt aataatatgt aattcttata tatatagatt 360
 aaagagttgt tgtagtgctc ttttgttttc aaatagtttt acactaatat atttaataca 420
 aaacgcttta caaattttac aataattgat gaaaactatt tgagatttta ttctogaagt 480
 acaacttatg tattaa 496

<210> 886
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 886
 agcntaaata acaagactga cagtttagtt ttaacaattc atcatgggcg atggaagaga 60
 tattgaacga cagccattga ttcaaaatga tggaactgga agccttagga atcaaggatc 120
 ctatacgga ggttctcaaa ccacgacggt ttcccctata ggtcctgatg agttgccacc 180
 gtcttaccag ggaagttcgg ccagtggcgt gcccatggct acttgcaggg tgtgtcaggc 240
 catggctgat atttcaggca aacgcgaaca gcatgtcgtc aaatgcaatc agtgcaatga 300
 agccacacct atccgcaatg caccaccagg caagaagtac gttcgatgtc catgcaactg 360
 tttattgatt tgcaaaagtt catctcaaag gatagcttgt ccgagaccaa attgcaaacg 420
 cataataaat ttagcaccta gtctgtgac accacctgtc ctcacgggtg aaattttcgt 480
 gccaggaatg tgcaagggtt gtgtgctatt gtgggganog tttttttcaa caccctaaca 540
 atgcctcgc 549

<210> 887
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 887
 gctaataatg tgacagccat aaatattgta gattaatgta gaataatttg tattgagatt 60
 tagattttgt agcatactag aatgttatgt gtgcttgaat aatgcaagtg agggaaccaa 120
 taatttggtc tgtttttata atacatttta gataataatt attggtgaac tcaatcttgc 180
 atatacgccg ctaatgaatt aaaccagcag gcatataatt tttgtactta aatatttata 240
 taactaaaac tgatacgggt tacgaaaaac acataactat attatttatg tttctagacc 300
 cgcatagaatt aaaacgaaaa cggcaaaaaa ttgacgggga tccaaaacat cttttatggc 360

aactgcaggg tcaaaatcct tctacgagta agtcattttc aactttttatt ttttttatca 420
gcaaatacaaa caggggttcaa tgtcaggtga cgggtgaatca cgggggtggat gaataataaaa 480
actcatatca tacgcttatt acatataaca ctaccatttt catattatca gtaatttttct 540
aggagnata 549

<210> 888

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 888

atggcatcct aaacaatata ataataat aataatgaat ggcattttctc gctaacagat 60
attttaatat agcgatttga atagttttta tttatttgaa tattgttcag agtgatactt 120
tttatatttg ctgtaataaa aatgattatt atgataactt atattatgaa agggaaaata 180
tattttaaact tttaattgat taccgaagag gatattgatt tgtatatatc tacttgaata 240
tgaatttgaa cagttaacat tatcttcaaa tttttaatat aattttaaact tattgggttac 300
tagcaaaaac gtcaagatgt ctaattacgt gttgaaagtc aaatcaaaaag aaggacagca 360
tattttaaga gatctcaaat cttccatgac tctgggcat cttttactga aactttcatg 420
ttgacatcga tatctaaacc aatttgcaaa ttttatcggg ttttcgcct aaagcattag 480
atttatctga tnagagtaag actttaaagg ngagtgttt nattcaggag atctgtattg 540
tgaaaaaat 549

<210> 889

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 889

gagaagggaa actgatcacc atgaaattcg cagtagcaat tttgggcctg gccctgtgtg 60
gtttggcatc agctcagttc cagaatggac gcatcttaga accaccagta cctgcactct 120
gcgcccagg gacgatacac gaacgtagcc cagacggcaa aggatacttc ttctcgtggc 180
gtgaccaca attggctggg gttgaggaag attgggttggg cgtccgcaac ttctgtcgcc 240
aacgttgcat ggacagtgtc agtttagaaa ccagtgccga aaatgaatgg atcaagcaaa 300
gaattgtcaa tggaaatgtc aaatacatct ggaccagcgg tcgtctatgt gacttcaagg 360
gttgtgaccg accagattta caacctgttt ccgtaaatgg tggttctgga ccgtgaatt 420
gcaaaaactt gcccaaccac agacagacaa caaacgact ggtctgaagg agtggtattg 480
tcttctcac cagatacaag aattgaacaa ggtggacaac cgaaactgtt tgcagtttga 540
cactttaca 549

<210> 890

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 890

```

cgtgggataa aaaatgaaat tatcaattat tttacttttt gtggcttgta tagccttggc 60
ttcggctgca aattttaaac aaggaaggaa agctaaaaga tcgggtaatt tggatgatgaa 120
aaaatcacca agaggttctg aaaataatat ttttaacact ggttttgtga aggattccat 180
cgatttcgga gcaaagactt taattcgtgc cataaattta gcagaaccct tagttcgtga 240
tagttttgac ctaggaaaag atgtaaccct acgtctgac cgaggagcac caattgacca 300
acatggaaga gcttctgatt ctgaactttt tgaaagattg gatgaacttg tccagaatat 360
aggaaaagct tttgaagccc tatttgataa ttctgaaaca aatgcgagga aaggacctcc 420
aacggaggct agggttccat actaataata atagtaaagg actaagggtg agaaaaaatt 480
ttttgagggc aaaatggagg agaaggatgt gtgaatttga tgtctcaata taaaaaaatg 540
catnaatag

```

<210> 891

<211> 548

<212> DNA

<213> Ctenocephalides felis

<400> 891

```

cccttcccc cttccccaca aacatcacgt gtatttttag ttatgaaaaa aaattgtaat 60
tattttgatt tttggatttt tttaaaaaaa aattctctct ccctaaaaac atcacctgat 120
taatggagcg atcctatttg tattccttat ataaaaataa aaaatgtgaa atttagatat 180
actgaatgat tactcgtacc aagagtcgaa acatataaat aaataatata aaaatcaatt 240
taccattttc aaatttgatg aattgggtgc aaactatacc aaattcctca attccaatca 300
tattcatata caaaaatacc tatcaaattt tccgattcat ttaaaaccga ttacaatcaa 360
ttccattagg caccagtatt tataaataaaa attttgcgca tatgtgtgaa catatattca 420
ttattttatt agtctgagaa atagatgttg actattcgag agagcagcga aatgtcgata 480
tttgccacct catcagatgt tggataacca accgntaata accgattttt agggggatgt 540
taangcct

```

<210> 892

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 892

```

tatttttggg tcttttatgt tttacaaaaa ggatttatcg ttttaagttt aaataatgac 60
aatcttacaa attaattctaa acaaaaatgt aacaatattg ctttaattaa ataattcggt 120
tattgttata ttgaatccac aaatatgaat tgttgattat tagcatcggt tatttttgggt 180
gtaaataact tatgcaaagc agagttgatc ttataaaaca tctaatactt attttattat 240
acatagtgtg atacttgttt ttatttttaa tacattacaa actaaatgta gttcatctat 300
gatttacatg aaaaaaaatt agttattatt tgttagtgtt taagacattt tacgcaatat 360
ggcagtaaat aaatgcgcac actaaaaatt attattaata tttttatagg aacgaaagtc 420
tataattcta tacactacat cgctttgtgc aattgaaata atatttttca ttatattgna 480
tgaatttagt atatcaaaac atttaaaatg gttatatgta tacaggtnca ttattgtaat 540
aatgagaag

```

<210> 893
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 893
 gaacagttgg ataaaataaa aaattgtgaa ctaaaattta ttttcaaatt tcattaattt 60
 ttaacaaacc cttttccgta atattgacgg aacctgccta agtgaagcaa aggacgatat 120
 cggttgtcgt tggtagtgta gtgaaactat aaaattgtga ataaaactta aaacatcacc 180
 aaaaataatc cacacacttg cagtaaaca attattattt gtctctatag acagaaccaa 240
 atagaagaaa aactcagctg ccaaatacaag attgacataa ctgtcaatta tttttatgtt 300
 gatcatttat taatatatca attttgactt tcacgattc tatctcggcc ccccttccca 360
 ccatgacgct ttcggccaac agcaatgcta ccaatcgctt cgggtcgcag cagggacgta 420
 gcctcaatta gccgccgtgc gaatacaggc cggcncagag gatatgcgtg cgcaagcagt 480
 caaacgttgc aaaatcaaag tgacggtgca agagacagct gnagaatcta ttgacagaga 540
 tacgcgcac 549

<210> 894
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 894
 attagacttg ccacatctaa ataataataa aattagtaaa ataatttgta aatattttatt 60
 taaaaaataa aattaggatt ttttattaat atgaaataat aaataatcaa ataaatttag 120
 tgtaataaat aaaagtgtgc atgtgtcatt cttgattaat attcaacgca attaaagatc 180
 aattttgaat gtatcctctc aaaaattgtt gtatgaggag atgactagca aattttttat 240
 aaatgtcgtg gataaatgag tttcgaaaat ttatttttga ttttataaga actgttttcg 300
 aattataata gagggaagag ctagaaatcc acatatcaaa attttaaatg gacctgttat 360
 agaagaaaat gaaactcaac aaaggaacca tgaaaaaacc ngagttctct acaattgccc 420
 ctgtgtcgaa gaagacgatg atcgagtata tctaatttga atcagatcta cacaaatgag 480
 tggccatcct gccatttita tagactcaga caagcggagg gcccttggan ggcagatgaa 540
 attcccant 549

<210> 895
 <211> 92
 <212> DNA
 <213> Ctenocephalides felis

<400> 895
 taaaatcatc tccttttgat aaatcaaagc tcttgattaa catttcttgt attaatattc 60
 gcttcttcta ttcagctttc atatttgccg gt 92

<210> 896
 <211> 386

<212> DNA

<213> Ctenocephalides felis

<400> 896

```
atatacttta catcgaatct aataacaata aagagttatt aattttcatg tcgatgtttt 60
agaaaatgat tcagtagcaa cttctgaatt ttctttgtaa ttgataatac tttctcaaag 120
tataattgca tttcacaaca cacgacggaa atatggttat ggtccatatg aagcaatgct 180
cgttcttcta tccacttgct totgataaat gttcgggtata aagaatgcaa tcactccaca 240
tgctatcaga gatgttcctg atattaaaaa tgttaaactg caattataat ctagaattat 300
tcctacaaca ttgcttccaa caacacttcc taatcgaccc atcattaaag atatacatac 360
tgccattgcc ctgagttgtg taaggt                                     386
```

<210> 897

<211> 105

<212> DNA

<213> Ctenocephalides felis

<400> 897

```
caggcagaaa cgagaccaat tactcactcg aagagtggaa ggcattgaca ttgccaagag 60
aatataattc caaaggacaa atcgactaca gctcttgcaa tatgt                                     105
```

<210> 898

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 898

```
aagttttcgc agttttacaaa tccagaagag ataccannng caacttcaan atcagatcaa 60
tgagtgcagt tcanaattaa gaatgtctag ttcagagcta acaaagctgc tancgtcatt 120
atcaagcata ttgagcgatc aatcatatat ccaacagnnt cncgatatca acgataccat 180
cactgagatg tcagaagttg aaaattggaa gtcacaaaca aatgccangt catcaangaa 240
tggcacgtca naaataantn tattaaattc tttttaaaat ttatgtatta nttaaattgt 300
atgtctaatg cttcatatta ntattaagtt ttcaaatttt tatgttnttt tttgtactgt 360
atnaagagtt tacttanttt tontagtttg nnatacctgg gtaatttgta cctattnang 420
aagcttaagc tcgnngaaaa ctanncctta ccnntatcag tgctangtat tttnacnnca 480
annataacan gcttngag                                     498
```

<210> 899

<211> 359

<212> DNA

<213> Ctenocephalides felis

<400> 899

```
cgtcaagtcc aatccaagag tggaaaacttt ttcaggaaag ctactagaga ggtgtcattt 60
ccaccagtgg gatcgagaaa taatcgacaa attagctgtg ttcgtgccct ggaccaatat 120
```

TTTCTT = 926T660

atncatattt tttatattta attgcacaga tcatttgtgt atttantata ttaattgact 240
 actttatgat aatttgaatc cnaattaatc tattcaagat tgnnttcctg gnttaagcct 300
 tacttagcaa ncncactttt gcattcttcg cgggtggcg tgggtatgca tcgcancncc 360
 gttttatcaa antgcancnc gatttgnca atcataatgt nttatttncc ncntgtngnn 420
 nccccagaa ncattgntca nacttttnac aancccctcn atngggaaaa acctttcact 480
 tntgcatgca cttc 494

<210> 906

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 906

ggaagcacct taggctgtgc aggacatgta actgtatagc attttgtgcc cagagccata 60
 ggtccgcaat tatgacgtaa cggatcatat gcaaaatttg cggggcaata atattgggtt 120
 cctatactat tttcgtcaca ataataatag ctttgacaat catttatatt tggataaaaat 180
 ctcgatggtg acggacattt gaaaccttgt actttgcana ctgtactttc tttagtgggtg 240
 cactgtagat atccactttg atcagcgcac acttgatctg ggctacagga ttccttaacc 300
 ggatctgctc ctatttccgg acaatactgc atttcgggtg aactgcacga attcacgcaa 360
 ctaaatttta cttttttaca tttttgctcg ggtttcggtg cangtgtacg ttcangagta 420
 gtactactcc tgggtgcgggc tcatccaatg atgcaaatac ttctttattt actgttaaan 480
 gcgttccgtc gacattaa 498

<210> 907

<211> 215

<212> DNA

<213> Ctenocephalides felis

<400> 907

agactgaccc tgggcccagg cgtttgctta acagtgacgt taaagacgac caaccacagt 60
 caacgaatga tgaaataagc tcatccacaa ctgctccaag ttcaaacgtg aatgaaagca 120
 atggaaacct caccgaatca caacccttaa gccaaaatac ttcaacaaat actccattag 180
 aaacatcaaa tacctcacta gcagaaagca gcagt 215

<210> 908

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 908

taccttttgc taccgatgct caagggcgat aacggaccca cagcctggcg tccaaaatgc 60
 ttccctcgccc gcaacgacat agtcgttttg caagatttat ccatgtataa ttttcgccat 120
 tcgtatccaa aattctcttt ggatcttgat catgttaaag ttgctttaac ggcattggct 180
 cgtatgcatg caagttgcat tatctacgag aagaaaaaaa attggtgcat ggggagagtt 240
 tacaaagatc ttatgttcga gactatggcc aacaataatc aatggtggag aactggtgag 300

gatactgctt tagcaattgc tgaggaatct gagaaattcg gcaaataac cgaataccat 360
 tccatgggtcc aggagaagtt aattgatttc ctgagattgg catgggtctat ggtaaaacca 420
 tcgcgcattt ataagaatgt ggtatgccac cgcgatacgc gcaatcaciaa tttgatgttc 480
 aaatataatt caactggt 498

<210> 909
 <211> 245
 <212> DNA
 <213> Ctenocephalides felis

<400> 909
 tagacatgca atataccaaa gtttctcagg actatacttg ataaattttt ttgcatggca 60
 aacataagct ggtctttcag gttcctcaga tttagtcggg ggaaagatcg tggtattgta 120
 agacaaaaac ttttgtggac cttcagatct atctgtgcgt tgcaaggaac tagatgtatg 180
 aaataaactt cccctaaata atgaagtatt tttgctattg attagcataa gtttaagcact 240
 ctgct 245

<210> 910
 <211> 386
 <212> DNA
 <213> Ctenocephalides felis

<400> 910
 cctacacaac tcagggcaat ggcagtatgt atatctttaa tgatgggtcg attaggaagt 60
 gttgttgga gcaatgttgt aggaataatt ctagattata attgcgattt aacattttta 120
 atatcaggaa catctctgat agcatgtgga gtgattgcat tctttatacc gaacatttat 180
 cagaagcaag tggatagaag aacgagcatt gcttcatatg gaccataacc atatttcctg 240
 cgtgtgttgt gaaatgcaat tatactttga gaaagtatta tcgattacaa agaaaattca 300
 gaagttgcta ctgaatcatt ttctaaaaca tcgacatgaa aattaataac tcnttantgt 360
 tattagattc natgtaagat atatgt 386

<210> 911
 <211> 66
 <212> DNA
 <213> Ctenocephalides felis

<400> 911
 ttattgcatt tgggtccaaaa atctcaggct tataatattg gccacagaa gaatatcctg 60
 gtctgt 66

<210> 912
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 912

tgaaatgtga agacgacgtc aacgaatggt ttgacccaaa atctttctcg tgcagaactg 60
catgcaaaaag tgaaaacggt ttttcogatc gaagagattg taaaaaatat tatcaatggt 120
tcttggttaa caacaaatgg caaataaaac attatgattg tccaaatggc ttgcactttg 180
ataaaacgga gttgcgatgc ataccacgc caccogcgga agaatgcaa agtgagattg 240
ctaagtaagg cttaaaccag gaaaacaatc ttgaatagac taattaggat tcaaattatc 300
ataaagtagt caattaatat aataaatata caaatgatct gtgcaattaa atataaaaaa 360
tatgtataaa aattaaaatg tataaaattg tattttatgt aaggagcaca aacaaaatgt 420
cattaactat agtaatttct gattatttaa aatatataaa tatagaagct ttatgaaact 480
aaaaaaaaann nannnann 498

<210> 913

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 913

caagttatct ctgaattcct tcacggctcc tcttgcgcat ttgccgactt cacgaaccaa 60
gttgcccaat tgggaccagg tttctttgaa agccttgcc aagtccttgg ctcttccacg 120
ggcagcttga aggacatctt tcaagcaagc tctggcttca tcgacatcgg ctgcggtaac 180
aacgcactcc ttggcttgtg ctctgagggc ttcggcgttc tccctggctt ctctccaggc 240
ggccaagcca ttttggcgaa cttggttgaa ttcttcacgt ttatcatccc tgcaagcctt 300
gaccttagca cgagcttctt gtgcaaaacc tagagctttt tgggtgttggc ctttaaggca 360
ttccttttgc gcttcaactca cttttttgct aagtttcctt tcaacttctt tgttgaacct 420
ttccaaatct ctatcgactt cangggcaaa tccttgtttt tcgaattcag cagcaatcat 480
ttaattttgc tatcntgg 498

<210> 914

<211> 123

<212> DNA

<213> Ctenocephalides felis

<400> 914

tcttatgatg tagtcttaaa taaatgacat tattttctatt tcataaaatg ttactaagat 60
tgctcatatt ggtagaaga tttaaaaata aatcagcagc aagataaatg aattctgtaa 120
tgc 123

<210> 915

<211> 190

<212> DNA

<213> Ctenocephalides felis

<400> 915

aatgtcattt gttttcaa at ccgtagctat tttagctgct tcagctgatg attttgccac 60

accaaagtga ggtgtcggta tgccaccttc ctgcaaaatg ctgaaggata tatgctccaa 120
gacattgagc tttcgtgttt ggggtgtttg ccatgggtgct acggataaaa tcttaattcc 180
atTTTTTcgt 190

<210> 916
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 916
TTTTTTTTTT TTTTTTTTTT TTTGCTGAAC TATAACTTGC TCTTTTATTG CTCATCATAT 60
AAGGCTCAAC AGAAAATCAT TATTAATATT ACATATTTT ATAGTGATT CATTGATATA 120
ACCTTACATC TATTTTTTAA TTCATTTAAT ACCTAGTGCC AAATAAAAAA GTTATGCATA 180
TAAGTGTTAA CAATTTAAAT GCTTACATAT AGGACATTTA CTTGAGGCCA AGTTATATTG 240
ACAATATTCA GTTGATGCAC GAATAAAATA AAATGATTTA ATTATAATCA TTCTATTCGT 300
ACAACGATTT TATACAATCA ATCTGAAGCT ACAAGCTAGA ATTATATAAA TACATTTTAA 360
TACTATACAA ATATNCAGAA ATATTTTCATC CTCATCGTCC TACACAAATN CANCCTAAAA 420
TGTCTTACAA GGACNGTCAT ATATCACGAA AGGAATNAAA ATTANGAAAG GGATTAATTA 480
ANACTACATT AATAATACAT 500

<210> 917
<211> 95
<212> DNA
<213> Ctenocephalides felis

<400> 917
TACGAGTGCA CATTAAACGC TCAAGGTGTA TTCGACGTGG CCGATATGC TTGTGCAGCT 60
GAGTTATATT TCAACAGCGT TCTGCAGCAG TGCCT 95

<210> 918
<211> 68
<212> DNA
<213> Ctenocephalides felis

<400> 918
GAAAGGACCA TTAATTTATA ATAATTATTT TAATTTGAAT AAAATTAAAA AAAAAAAAAA 60
AAAAAAAAA 68

<210> 919
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 919

099196-1101
TTTTT " GGGTGGG

atgcggtataa attctgttcc tggatcatcat cgttccc

217

<210> 923

<211> 269

<212> DNA

<213> Ctenocephalides felis

<400> 923

agatctacta atgccgcggt taccactgtc acagcaattc cgcaaaccag caaccacaaa 60
tataaatatg atgctattgt taaatgttca ataaatgcac aaattattcc acaaattccc 120
catgagacca tcacgaatac aagaattgga agctttccca cagagttaat aatagcacct 180
attatgggaa atccaatcgc atatccagct tccaacatta aagaatgcat aaatgcctgt 240
tcttccattg tgtctttaca ctcggtcgt 269

<210> 924

<211> 303

<212> DNA

<213> Ctenocephalides felis

<400> 924

attananata cgctgagact ttaacctant tatagacata gaanatataa ttcttanata 60
ttaaaacctt ananacttac tntataaatt gtnatttaaa aacagggtga atataaagta 120
taataatta tagaagattg atttccntaa cagtgagtgt tatgttaaaa atatataatt 180
aatacatgaa atggacaatg tttcanttat tganacgaac ttcttgacta tgtctgcaat 240
cgatgactgt gagttatata taaaagtttt cttnataact tacgtgtata tatataagta 300
tgt 303

<210> 925

<211> 145

<212> DNA

<213> Ctenocephalides felis

<400> 925

cnttacgcct tcagtgtgcc ggaattcggc tnancgtggt cgcggccgcg gtacgaaagg 60
accattaatt tataataatt attttaattt gaataaaaatt aaaaaaaaaa aaaaaagaaa 120
aaaaaaaaaa aaaaaaaaaa aaaaa 145

<210> 926

<211> 428

<212> DNA

<213> Ctenocephalides felis

<400> 926

taagtgtgcc cttaaattctt tcaaggtccc ccttgccgat tttccgactt cacggactaa 60

gttgcccaat tgggaccagg tttctttgag tgccttgcc aagtcttttg ctcttctgtg 120
ggcagcttgg agaaccctt tcaagcaaac tctggcttca tgcacatcgg ctgcggtcac 180
aacgcactcc ttggcttgtg ctctgagggc ttcggcgttc tccctggctt ctctccaggc 240
ggccaagcca ttttggcgaa cttggttgaa ttcacacgt ttgtcatctc tgcaagcctt 300
gaccttggca cgggcttctt gtgcgtagcc tagagctttt tgggtgttggc ctttaaggca 360
ttcctttgag gcttttttgc taagtttctt ttcaacttct ttgttgaact ctccaaatct 420
ctatcgac 428

<210> 927

<211> 118

<212> DNA

<213> Ctenocephalides felis

<400> 927

catcaccgag aagaactctt cggctacgga atatcttcat tggaggcgcg ttgttgggtgc 60
acgcagcatt aacaagggtc ttgcaattca gcataatgac cagaagaaaa atacaggt 118

<210> 928

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 928

catttgcaag aattatcagt gtaatccaaa aacaatcctg tccgcacgca agcaaagggt 60
tgogatggtc ctggctcttg tggcggtggt ggagggtgag ctgtcgccaa gcaactcggat 120
aaaggcgctt gcacgcattg tgggtaaagc gcgctgaagt atgtctgtcc ggcgcatgta 180
aaacgaccca cgttgaaatt tcctccagag agtctcacac attcaaaata tactttgcat 240
gttttgtctg ctggatctgc aaatgagccg ctctgcacgc agctgtatat gggcgggcggc 300
gtagggtggt gccaaaggcg tggaggattt cttaggcact ccgaaagggg agcgaccaca 360
cattgctgat agaagtaagt agaaccaagg acaattgtaa cgcgctacac tgaatcctcc 420
gcctgctttc aaagcacatt tgtagtatcc tttgcaagt ctgtcatagg gatctataaa 480
catcccttc 489

<210> 929

<211> 409

<212> DNA

<213> Ctenocephalides felis

<400> 929

gactcgtaat tatatattaa gtcagtttgg agaacatact aaaaacacta atgatataat 60
cgtaagtgaaggaaattct caataaatgg tgaaattcta gctagtgcaa aggttaattt 120
aggtttggct atgtcacagg aaaagttttt aagtattaat aatttcattt tgatattaca 180
agaaatatta ttatctgtgt tgtttaatga tgataaaggg aatcacattg tatagatttt 240
caggaaactgt caaatgacag gcaaagtata atcatgatta atgataaaat tctaaaaagc 300
aaagggataa aacaccctta atgtgcactt gcttattgca tttgactatt ctgaaagaga 360

tgtcaatagc taatgtctta ttgtagatgc tataagaaaa ctattaagt

409

<210> 930

<211> 349

<212> DNA

<213> Ctenocephalides felis

<400> 930

taaaacgaac tctagaatat tcaaacttag ctggagggtga tacttccaac atgaaatata 60
ttgagctaaa attaatccaa agtaaaaaag atatagaaga tccacaatta tgctgtaaag 120
ctgaggtagt atcttgatat gtgaagttct tgaacataat tgtgttctta aaaatatgaa 180
aatttgtgta tttatatatta aagtcaactt attttctaaa aattacgata gcttataatt 240
atgtgttatg tgaatatgat tatcaattgt taaatcaatg tattctttat atgttactat 300
tatatattat taaattaana aaaanaaaaa naaaanaaaa aaaaaaaaaa 349

<210> 931

<211> 382

<212> DNA

<213> Ctenocephalides felis

<400> 931

taaaatcttg tggagaagaa tgtgtcattg cgatcaaaac caacacagcc cttgataaat 60
aatgtatttt tcaacacatt caaaattaaa atactatgag aaccaattca aactgtttta 120
acaagtttga caaagttgtg tcgttgataa tcttagttga tgtattgtct attaaaatcc 180
tgacacttca agcattgttt atgaatatat tgatcaagaa tacaaggttt ttaagttctc 240
tctggaatat tttttgttct tccagagatg tttaattgac agttgtcaat caattggggt 300
tttcatagac atacattgta acagtatgct tgttttaata aaatcaatca aattaataaa 360
tatccatgat tatgaattaa aa 382

<210> 932

<211> 313

<212> DNA

<213> Ctenocephalides felis

<400> 932

aattcttggc tataagttcg ttgcatgttt tgcaagtgat ttgtttattg catttattcc 60
cgtggcatat ttacatgaa tcagagtttg cattacaatc gttaccctga tctgatttgc 120
atcctcgagt aatgacacot ttttcaattt ttgaatagca gtcgtccttt ggattcatac 180
aaactttggc cttogtcttt cctgcatctt tgaaacattc gtttcttagt tctggaagtt 240
tttgaacggt acaaccogat ttctcgcaac acattttttc tcggttagtc gagtcacaac 300
tttctttaac cgt 313

<210> 933

<211> 85

<212> DNA
<213> Ctenocephalides felis

<400> 933
tttgatcaat aatcttattg atcgcaaggt ttgtgctgcc tcgagtaaag tgcacactac 60
gagaaaagtt gccaaaggaa tttgt 85

<210> 934
<211> 446
<212> DNA
<213> Ctenocephalides felis

<400> 934
gaggagactt tgtttaccgt aatggacaac cattcgaaat tccaaaagga aatttactat 60
tgaatgatta aatgtaatag attaatacaa ttttagatta ttaaaattgt tctattacta 120
cagtagcaac ctcagcctga aaattaaccg aacaaatttc taacccttat caatgtatag 180
attttgaaaa ataacataga aatactattt ttttgatgac tgtaataaaa aaatgtataa 240
atggccatac ctgaaaagat ttctatgtgt attttttatt accttttatt gctgaatgga 300
taaaagataa atacaatttc ataagctctt ggattaaatt aattttgaat aaatccataa 360
ttataaaaata tcaaattgaa atatggaact acaaaatgta tacgaaatat aacttatata 420
ataaatgana acnaatnntg ccgncc 446

<210> 935
<211> 491
<212> DNA
<213> Ctenocephalides felis

<400> 935
tttttttttt tttntttttt tttnttttg tacancatat aacgttatat ttogtataca 60
ttttgtggtt tgtggtccat attttaattt gctacttaac atattctatg attatggntt 120
tattcaaaat taatttatcc aaacagctta taaaattgta tttanctttt atccagttca 180
acaataaaat gttaacanaa aaatacacat aganatcttt tcanacatgg ccatttaaac 240
attttttcat taagggtatc aaaaatatan caggcatggn catttataca ttttttttag 300
tatgagccan canaaaaata ntanaatttc natgttanta ntcaanntct anacantnan 360
anngatgtta aaagttaatt ttcangcaga agttgctact gnactnatnn aacaattttt 420
tcatccanaa ntngntnaac ccacnncatt taatcatcac nantaaattc cgnttggnat 480
tncgantggg t 491

<210> 936
<211> 323
<212> DNA
<213> Ctenocephalides felis

<400> 936
aggatcaagag atatagataa atattttttta taaatttctt ccttggtatc aattanatta 60

ttataannta tattagcaag tgtattaata attatctoga aatattatat tanaattaa 120
gcagctcgac tcacaatcag tcttganaca aatgtcggnc gacatattgc ttttacacaa 180
atcgattcac ttttacacgt ggtgacttgt tcatttgatt cgtcatctcg cgcattgatt 240
caaattctatc ccgcanaactt ttggcacttt ctaattgtga gtcattattt tcagtttggg 300
cactcttcaa gaacatttat cgt 323

<210> 937

<211> 386

<212> DNA

<213> Ctenocephalides felis

<400> 937

aggnaatggc aaaaactgtg tctagaactt tgaaaaccaa aatttcattt tacttattaa 60
cgttttcaaa actttaaatt ttgtttttat ttatcaatcg atcaattttg tctttctttt 120
ttgtcttgaa acaatttaga gacactgtaa tttcacctag cacctgattc tgtgattaca 180
ttataattag aatattatca cgcggattat taacacaatt tcatcgtgaa taattaatat 240
aacactagaa tacagaagac gcacgtgcat gtatttttaa atcatacacg cgacaatggg 300
gggtgggtta caccatctga atccgggttca acaccggatc aggtgagcgt ctttgctaac 360
cattaaaggg tgaacaagg cggggt 386

<210> 938

<211> 385

<212> DNA

<213> Ctenocephalides felis

<400> 938

tttttttttt tttttttgcc ttagcatatt tgcgagcctg ngttcaacca nantattttt 60
ttatataaca cataaagnan ancaaagtan atattttgta tagtttcttt tgtngagnac 120
ttcatcaata tantaatata atttangntt cctcncgcan gttcccggtg tgcanctttg 180
ngtatcttgg ntaaataatg ttncaatcgg acattgntca ggancnggnt ccccttttagg 240
gcgtaaacac gtgaaaaact tccggcatgt tncgtnggtc tnnaaancac attttccacg 300
tnctcngnna nangtttctc tccttgggga aaactcggcg ggttcttcgc attgcaatac 360
ggctccnctt ccagcaatnc atacc 385

<210> 939

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 939

ttgatagaca gatcagtcgc atcaattgaa tcttgagcta ttttgctcaa ttgactattt 60
tgttcaattg gaactgactg aatagacgga attccttcaa tactttgact tccaattcca 120
tctccaagaa ttttctctaa tttttgggtg aataaggaac ttctaattga cgctgagtca 180
gaatttttat ctctgagctt tacagaacta gatcctgtat tagttttatc agtttcgggt 240
ttataacaat catcacattg agaattcacc agtcctgcag gatcaactat ttgaatattg 300

<210> 943
 <211> 274
 <212> DNA
 <213> Ctenocephalides felis

<400> 943
 acatanacta atgcccgggt taccactgtc acagcaattc cgcataacca ncaaccacaa 60
 atatanatnt gatgctattg ttaaattgtc aananntgca canattattc cacanatctc 120
 gcatgatacc atcacganta caacgaattg gaagctttcc cacagnagtt aataanagca 180
 cctattatgg gaaatncaat cgcatatcca gcttccaaca ttaanggaat gcatagnatg 240
 cctgttcttc cattgtgtct ttanactcgg tcgt 274

<210> 944
 <211> 598
 <212> DNA
 <213> Ctenocephalides felis

<400> 944
 tattttttgca ataaaaacca gtaaccagtg gcacacaaat ttgtaatggg catgtttcat 60
 tatgatcgat cgtattttat attaagagca attacattat taattaagat attacattct 120
 cttgaattac ttcttattct ttggaacctc taaaagttct tccagtagtt catccatagc 180
 ttctatcaag ctagtagcat aattttcatt gttctccatg agatccaaaa cagtctgctt 240
 tctcattcca ttaacagtag gatcaaactc ctcagaatcg tggntcaaaa ctgccagtat 300
 ttcaggaggc atttgagtaa gaggcaatgt catcacgcc aaaatttttag cgcacaaacg 360
 caaatcatcc gtgctancat caaactcttg ttcaggaatt atatcgttta catccaaatt 420
 ttccntcgta atgtttttcca caaatgctgc tctgtagaac ctcttcaatc ctggtagngc 480
 tgggtctctaa agctccanat gttgtcgata tanaagatga ttgnatccan agctggtgga 540
 ttgttgtgca tcttggantc gncaagatgc attgtnaagt anacanttgn ataganct 598

<210> 945
 <211> 167
 <212> DNA
 <213> Ctenocephalides felis

<400> 945
 ctgcatacca gtcagactgt ttaggtgcaa gtgtcaactc ttccccatcc ataccatcct 60
 taccatcctt accatctttc ccaaccttgc caacatcttc cccaacagca ggatttcctt 120
 ttggccgaaa atctcttgat atgcaaacaa aaactggaac taaatgt 167

<210> 946
 <211> 160
 <212> DNA
 <213> Ctenocephalides felis

<400> 946

ttatttccca atgcanatgc actgctgggtg atttgactcg tatggctaca attggtgccg 60
 acaaactagg tgcccaacct gggtgtccac caattacagc ttgaccttc ttgcgtccat 120
 tacatgccat gtttangcaa agggctctgg aattgggggt 160

<210> 947
 <211> 193
 <212> DNA
 <213> Ctenocephalides felis

<400> 947
 cctattccgt cacctacgcc tctgtcgaag tcttacaaga ttctgaggtt ggacaggctt 60
 tcatcgtctc cggaggaatc ggccaatctg aaatccattt ggctgttgta gctgacaaaa 120
 ttaagcaagt ccaatatacc tacgaaatct acgccattgt ctacgtttaa aatccttaaa 180
 tgactgaaat tgt 193

<210> 948
 <211> 413
 <212> DNA
 <213> Ctenocephalides felis

<400> 948
 acacaattag caataggaaa atctagccac aaatattttt aacaatttat ttaataactta 60
 tgttctagaa atacaaagtg taaagttcaa gggttgtata gcttaataaa gtaaaccattt 120
 taaaatgtaa tgaatttatc tgcaaatagt caaaatcaaa attactatat aatgattatt 180
 gaaataatgc ttttatagat tgcaatttcaa tctgtattaa attgtatgta aatcacagca 240
 caagatctaa cacacaattc atctaacaga aagaacaaaa taatttttaat gttattaaaa 300
 attacatata aaataacttt tacaataaag taaccttaca tgagatgtgt tgatttcaga 360
 tacttttcat acaacagtgc tttctgtata aacaatataa tatanataac ggt 413

<210> 949
 <211> 237
 <212> DNA
 <213> Ctenocephalides felis

<400> 949
 aaacctatta attacaacaa ttacactaaa ttaaattaca attaatcoot aaactaacia 60
 attcacttcc acgtgtctgt caaaaataaa atcactcaca aatctttaag caaacaccat 120
 gacaagttca ctcttgatga caaagttctt atcttttatt tacaattgtc ttgacacaat 180
 aatggnnttat ttaattttaa tcactttgat tgatttatgt gatgttcttc atctgggt 237

<210> 950
 <211> 131
 <212> DNA
 <213> Ctenocephalides felis

ttatccaaaa taggtgtgga taattccaaa cccaagccct cctcatgtgt gtcaatacct 480
ctgtatgatg tgcttaaa 498

<210> 961
<211> 414
<212> DNA
<213> Ctenocephalides felis

<400> 961
aaatggaata acactataat ttctgttaca ttatagttaa agtgtaaaaa aaatgagtga 60
aaatatggcg tcccatattc cttacaataa ttggntcaot tacaatcagt tataacatct 120
gcatacaaaa tgtnggtatt tcaattttat acatacaana caaatttcat ttacaatttt 180
acgtagtatt tttattaact aattgataat aaaaaccctt ttaagacaca aaaatgtgtg 240
tgaaatttan ttaatacanta tgaaaatttt taaatcttta ntgttaacan tgattttttt 300
ttaaatagga acancttaan gcaacattga gaaaatcttc gacngctatt gttatggttc 360
ctgtttgttg ggaatctcgt tgtctgaatg cttcctgtga gcctctgtat ttgn 414

<210> 962
<211> 234
<212> DNA
<213> Ctenocephalides felis

<400> 962
aaaagtgnnt taccatagan gtttgtgaaa gacctgngtg tcctcaacgc tttatcagac 60
aaagtcttag aactaacccc tgatgaacgt cctagcttat tcttcttccg cttancanta 120
aatttcaaat cccccgnaga aancgnnaaa nccaanactg aactcaccaa nggcatcaan 180
cancttgagc gaagccttcg ataaaaccta nanaggcaaa gtgctgttca ccgt 234

<210> 963
<211> 379
<212> DNA
<213> Ctenocephalides felis

<400> 963
taacctccaa tgacgtctta acacgtaaaa caaggcaagc agatgatgcc ccaaaagaac 60
ccgatttcaa cctagctaaa gaatacaacg actcctaccc ggtgggtttt aacatcatct 120
tatggtttgg agtagccttt ttcttctcgc tactagctat ctgtatctcg atctccacaa 180
tggaaccccg aagggaactcc attatttaca gaatgacatc cacacgtatc aagaaggaga 240
attaagtttg tgaaggagtg tttttaattg taaatagatt gtttagtatt attacaatgc 300
aacgtgatca atattattta aaaatacaat atctttgttg ttacatattt gtttaacatt 360
cctcatatta ccgaattgt 379

<210> 964
<211> 462

<212> DNA
<213> Ctenocephalides felis

<400> 964
atgggtgcatg gatgcatttc gctgatcggt aaaatacgcg atacaaaaaa ttaacaacgt 60
tgcgcgctctc ggcgataatt acngttcnan aattctcaaa nctttantct tctcntanta 120
naattatgtg tatttagtcn cgcgacnata nttatacggt tcgogctata tatanaataa 180
taaagattca ttacatactc aaattactat tacnatatac attttgcant gacaaccata 240
tcnttggnca tgnaattata ttgtnactgt anattcaata catttctctt tatttaantt 300
tgnaactann ancnaactaa ctattantac tcgcattana tccannntta tancatncc 360
tatnntcgng ttttttactt ttgtcataca ctttctttt nttttacttg antannatcn 420
cttaaaaacgn tnanaatnan nccnacatct atnttagnaa nc 462

<210> 965
<211> 258
<212> DNA
<213> Ctenocephalides felis

<400> 965
gtatatacaa taatcaattg ctaagatata tcaagcatat gtcatacata ctgtccccaa 60
ttttggaggt tttctaaaac aattatgaat ataatgtatt tgttaccaa taatttgcac 120
atggcaacca tatatgaaga tctgtatatt gttcatgggt tcattccaat tctgcacgac 180
tcatattcag acaatcatcc tcgagctaata cctctccacc gactaattta agagatttaa 240
gaagtgaagt tatgtcgt 258

<210> 966
<211> 134
<212> DNA
<213> Ctenocephalides felis

<400> 966
aanaccanga acaanactta ggaacacaag gttttattac ccaccacaat tttgctggac 60
aaaaccctag ccaaagtggg ttcaactatc acaccagcaa tttccangca agggctaata 120
nacactgnna atgt 134

<210> 967
<211> 462
<212> DNA
<213> Ctenocephalides felis

<400> 967
aaatatgaaa tgtttccgac antcattaaa atttctttta ttcaaataca aaatgtagca 60
nttaanaaaa taatacaaca attaactgtc agccatttta tcttctgagc aaaataacct 120
ttttaccatg tttatcnaaa tttataaaaat tgacctttta acctttcccg atttattaaa 180
aatggatttg tatataaaaat taaatgcgca agcaggaggc agggataaaa taattagtat 240

atgagcagaa ctttgtggga cttcctgcag aaacatggac aacatcagga agtaattgac 300
aagttgaaaa gtttgagatt tacattcagc tcattcagga aattgctgcg tttgggaaaa 360
tgcatanatg ttttcnactc ttcattgcca actatacatt acccanaccc acaattnnaa 420
ctacattngn nattgnnac nccttntttg nnttannttt an 462

<210> 968

<211> 470

<212> DNA

<213> *Ctenocephalides felis*

<400> 968

tactttcacc aattacaang taaatctttc aggaaatcaa tcangaaatt attantttat 60
gagtataccg agttgctcta tggacttaag atgtagaca aagttgtaaa ttatttaatt 120
tcaaacaaat ttgccaaata tttcattcan attaaacaaa ccattcaaaa gttacaagaa 180
ttttaaagtt agnaaacatt gcgacaacgt antgtnaca tcaatttaaa attantaatt 240
tttcagtata ccgagttgct ctatggactt aggatgtag aaaaagttat agactattta 300
attttgaaca aatttgccaa atatttcatt taaattaanc aaacagttta nangttacaa 360
gaatttgaan gttagtaaac attgcgacaa cgtagggtcg acatcaagta nnnattagta 420
anttatgagt ataccgagtt gantagggac ttttgggaanc gatntngtgt 470

<210> 969

<211> 397

<212> DNA

<213> *Ctenocephalides felis*

<400> 969

atcatgctga gctttcaatt cccaaaattg gcgcatgttt cctaaaggct gagatttttt 60
atcttttagga attgatattc cagataggtc acgatctgca gttttaaccc aattctctag 120
tctgtcactt gtgatgtcgt atgtagacca tgtatcacgg aacgccatta atctgcgtaa 180
atattcacca acctcatctt gcagggttag caatacatcc attgcctcat tgtgtgcttg 240
ctcaactcct ggacaatcaa ctaactcttg aagtttttca gtcatacaaaa ccaattgttg 300
caatttagcg tgatgatgag ctatatctga actcanagat tgatataatg tgatgtattg 360
atcataatcg actgtcgtaa ctgcagacaa atcaggt 397

<210> 970

<211> 340

<212> DNA

<213> *Ctenocephalides felis*

<400> 970

gaatactggt tcataaaatt tagaagccct aatttaccgc ctacggcgat atgatgatca 60
gacatatgtc cgggcttgct caaaaatgta aaatgcacat gggaattttc caatggcgctc 120
cacttatgaa taatattggg aagtccctagc aattgctgta tcaaattttc ctgcacgggt 180
tgaaaacaat ccttangcat cttcaaatca tccottacaa ttttaccctg gttaattaat 240
ttggtaaaact cgtcaccgga tttgtogagt gtcttaactt tatcngcgat gctggttctg 300

cacgcgtcca attttcggcg tgttttgtcc aaatcttggt

340

<210> 971

<211> 135

<212> DNA

<213> Ctenocephalides felis

<400> 971

tttttttttt tttttttttt ttgtgccttc agattttatt taaatatata acataagana 60
ataaaaacat tgatggctta tanaattcca atottatttan caatgtccaa tgcacgttaa 120
tccctggcta aacgt 135

<210> 972

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 972

tttagctgca tontccccaa cgntccaaaa tactcccccc antantaatc caacaagaat 60
gtgacanagt acacgcaatt gtgcaaagtn aaagtctcgt gacgtgcaca atagcgatcg 120
ttttgacaat actgcnaatt gtttganaaa tgatgtcggg tacaaagatt ccgatcttgc 180
tttcataact ttctttaagc tgcaagagag aggctccgtt tcgccaaatt ctattcgnat 240
tgcancantc aagagcngga tttttgccac gagcgattga tctgtatgtn tgttattatc 300
acatttcana ctgttgatc ctacttcggc gtgatttcta ctccatttan tttctgtnan 360
ctctaccaga ngatcgaggg tttcgcccg tncaaacttg cnangntcta angcacaatc 420
ggctctatta caaaantgtg gnattganng gccgaatcnt ctatngttna aatcangtca 480
caagtnggcc tangtata 498

<210> 973

<211> 305

<212> DNA

<213> Ctenocephalides felis

<400> 973

tgtctgcttc tatatatattc tccacaatta ggacaatcaa taacagatcc agaccaagca 60
tatgacatta aaccagcaac ccacgaccct gcagcaagtg gccattatt ctgactagta 120
tcagctgact gataatgcgg tgttacaata acttccattc cagacatatg gcaggccttg 180
caaacataaa ctttattgcc aaattgatgc tgaaatctgc attttttact gttataatgc 240
gattctcctt gctgttcatg gcccatgctc tgtgcacatc tttcgccaca agncaagcaa 300
atggt 305

<210> 974

<211> 171

<212> DNA

<213> Ctenocephalides felis

<400> 974

agaaaaaatg agccctgacc ataagcaaag accgaatcac ttgagtttta cctctgaacc 60
tgtaaatgtc cataacaata gtctactca tagcccaaaa tcagcaactt tatcgaattt 120
accgagacga ccgccagtag atgtggaatt tatagatatt tcatattcag t 171

<210> 975

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 975

tgaggtagaa gaaatataat aaatccaata caggagatac gaatcttgct atttgccaat 60
cgatgaagca aatttcaacg gggtttaccat cctgatattt aaacatcata ttattattcc 120
aacaatctcc atgtgaaaga actctataat tttcagaacc cggtgcattg aaacaacttt 180
ccatatattc ttcacaatta tctttgattt tcttcacatt ttcattgaaat tctgtgatac 240
ctccgtcatc tattgcttcc aaggcttggt tcagtcocaaa atcgcataaa tcgtaaaagg 300
cttctctacc ggtcatatca tacatggctg agtcgatttg agtaatttta tgggaattttt 360
caggctgttg atctctcatg acaaaactta atgcgtgata tttagctaata ccttttgcaa 420
ctaacgttat gtgagaaaaa tccatttttt ttcttttgtc aaacattaca aaatttctgg 480
cgtgcaaatac ttccaaaa 498

<210> 976

<211> 255

<212> DNA

<213> Ctenocephalides felis

<400> 976

tgaagaagct aatcagcaag caaagcaaaa tgatatacaa aagaatcata ataaaaatat 60
ctataaagga ggacattata aaaattatca aagaggtggc tatagaggac gtggaggaca 120
tcattccagg cgaatgcaga atcgaacaaa tagtgatact actaacgggg atagatgaag 180
atggcttact cttttagtaa agtatatgta tcaatgtgaa gcgataaaga aatatatcaa 240
gtcattataa taagt 255

<210> 977

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 977

aagttttcgc agtttacaaa tccagaagag ataccagagc aacttcaaca tcagatcaat 60
gagtgcagtt cacaattaag aatgtctagt tcagagctaa caaagctgct atcgtcatta 120
tcaagcgtat tgagcgatca atcatatata caacagcttc tcgatatcaa cgataccatc 180
actgagatgt cagaagttga aaattgaaag tcatcaacaa atgccatgtc atcaaagaat 240

ggcacgtcat aaataatfff attaaattct ttttaaaatt tatgtattat taaattgtaa 300
tgtctaagtc ttcataatag tattaagttt tcaaattttt atgttttttt tttgtattgt 360
attaatagtt tacttatttt tcttattttg atatacctgg taatttgtaa cttataaaga 420
agcttaagct cgtataaaac tatctttata tttatcaatg cttatgtatt ttaaaacana 480
aataaaatgc ttganagg 498

<210> 978

<211> 288

<212> DNA

<213> Ctenocephalides felis

<400> 978

agaaacacac acacacacac atgctatata tattacaatt ataatagatg ccccaaacc 60
acatgcaatt gactgttatt tactaataga ttttcatact tatttattta acaaaacgct 120
cttttccaat tctctctcat gggttaatgta tcagcatgac attaaacatc aatggatttt 180
gaaatagtaa ataattaata tttcagtcac ttcataaata atcaacaggc aaactataaa 240
tcacacaaaag gggttgcgata atttaatagt tttgcttgaa tataatgt 288

<210> 979

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 979

atttattttt gcttaacaag aaactcatgg acaataaaaa ttataggtaa catccggacg 60
atataaaaaat aatttaaaaa atgtcacttt ctaacaatgt tctagattta ctaaaatatt 120
agttatgctt tttatgtgct ggattggcat gcaaaactct accaaataaa aataagaaat 180
ttgaaaagaa acaattatttt aaatttaata tatttaatta aattaaatta cagggcagta 240
aatatctttc agcttatggt cttaattcaa aaactttatt ttcttttaat tcaagatgta 300
taatttgatg ttgcctctta caattctagt attctactaa tatttttgga ttttgagttc 360
tctacatggt gcactactgg taacaacctg gtgatacttt aatggcaagt attaccttga 420
taggatttcc attaaaacat tgtggcataa gagtattggt tcactcatcc tcagttgaat 480
tttcgacaaa taaagttt 498

<210> 980

<211> 251

<212> DNA

<213> Ctenocephalides felis

<400> 980

tttccgtaat gatgatggtg ggccgcgactt ccggaatggt cttgccggaa actttacacc 60
aaaagttacc ggaaacgcta actgaagctc acgtattcgg cagggatcag gtgttctgga 120
gcttaccgaa aaaaggtgta tcaaagtcta cagatacggc cgtcaagaaa ttatcacaag 180
aagactgtta aatagttata atttgatttg ttatacatat gtttcttata taataaaatt 240
atatttattg t 251

<213> Ctenocephalides felis

<400> 984

agaccaagta aaaatctcac tcacagcttt taccttatta ggatcattta aaaatctatc 60
tagaatgccca ggttttgccca gagattgctg cactttctta gt 102

<210> 985

<211> 204

<212> DNA

<213> Ctenocephalides felis

<400> 985

ggacggccga ctcgctccgaa ttatgctcgg cacgtgttcg attcaaatga tcccgtacg 60
ttcgacatcc aaatgataaa cactatctaa tcaagtgatg ttgtttaatt aagcaagtgt 120
tagttogaat tcatttttgt gttttgtgta tattataata aatggacccc gaaattcctc 180
tgaaaggtgt gactccgggt ttgt 204

<210> 986

<211> 324

<212> DNA

<213> Ctenocephalides felis

<400> 986

gcgccggacg cgtcaaataa actaaattan atttaattta ctaacaaaca tttggtcatt 60
agtttaaatgt caataatgtg ctttttacat ctaataattt gaaatcatta atggtcataa 120
atcttcgaaa agttgatggc acttcatgct tcaaactgcc aacgacatan caagctcaag 180
atgcaatatt aaactatgtt gtaaacatan natatattat tgaaatttta taaagaggac 240
ttttataatc gctcaaagtt tgaottaata caanataaat tatttctcnt tantatattt 300
ttatatttta aagaaaatgt ntgt 324

<210> 987

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 987

gtgagttagc acacaaatta gtctcagatt cgatcccaac ctctgtcgat cctatatcag 60
acagcacgag aaaattttca caaattttat agatctcaat ttaattttca gtgaaaatcg 120
ccttgatgcc gataacaagc tgcatataaa aatattaagt taaaacatat tattagatat 180
aatcataata tgtcgcaact agtatagagc aactactgaa taacattcca gaaatccaga 240
aacaagccat gcaataaaat ttcaatacaa ttactgaatg tcctcataat atgaaaaaaa 300
aatanannan atantataat atataatcga agtaaattt caattaacga aataaaatcg 360
taacanagaa tttgagagaa taatttgcac tatttatatg gcgatatggc gttgtcanta 420
gtattcnctg tatagaatga tcaatctgat aagaatgtca catattaaat tatttanttg 480
aaaatttata tgaatccc 498

<210> 988
 <211> 420
 <212> DNA
 <213> Ctenocephalides felis

<400> 988
 aatctgaatt tcatgaattt tggaaaaatt agtcatcata atttcaaaat ttgtctttga 60
 caacttttaa ggtagctaatt tctcacttcc tattaacttg ttttaggaca aaactccact 120
 tacacctagt ttgaactaca aagactacta tatatacaaa ttgaatttta tgatttttgt 180
 ataattttata aattcaaaat tcaaaatttt actctgccaa cttcaaaagt agctgaatct 240
 cacttcctat taacatgtct taggaagaca aaatttcact tacacctagt ttgatcttac 300
 aactactata cataaaggct aaatttcact aattttggaa aaaatgactc tcatcattat 360
 ttcaaaattt tacttcgaca actttagaag caattccact tactggtttg acctacaagt 420

<210> 989
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 989
 tttttttttt tttttttttt ttttctggnc catacaactc taagctttcc aacatttgta 60
 ttttattcaa ataatataa ataaaaatca taattcgaca attttacttg tatttatctt 120
 aaacatattt acagtatttc ctcaaaaact gttaaataca ataagttaac ttaaatacat 180
 ggatgttctg agaatgtgga tgagctcaag attgtagaac tgagtttgat ctacacaatt 240
 tttgcctaaa aggttcgact actcagaaag cagccacccg tgattccata ccgcctcaca 300
 tttgacaata aaatatatgt ataatgttaa ataggatttt aatggaaaaa agccaattta 360
 atactttagc attatgaata tgtattttcca aattagtcta taaccgaatt taacctaaaa 420
 tacaggaaat acatattcat anatatacat atatttttaac acaaaaagggt aacttgtgca 480
 aaaatgaaat tcaaatacac 500

<210> 990
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 990
 tctttttcga tcattacgcc agtagtatct tgcataatta tgtaaacaat attgttacat 60
 tttataaaat aatcttacta ttatctatag aacaatttat aattttatat atatcaacat 120
 tattgtttat tgctagatat tagaatttgt gtatttgata aatgaatggt ggtttgtgta 180
 aatgatatat aattgcacga ttttagctca caaaagtgtg cttagatatt tgaactaaat 240
 tatggacaga tcgataccta gatccataac aaaaatttat ttaaatttca aatataattt 300
 ttttttgctg catgctgaat aacatctcgc attatctttt gaaatcggtt ctttgttgc 360
 aaatctttta attctaaaca cttttgtaaa gatccatttc catcgaatgc attagtcatg 420
 tcttgaaaat ctggagctgt ttcagtattc gcggaaatga aatttagagc aaaactacat 480

aaaactactc caaagtgt

498

<210> 991

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 991

tttgctcttc atagttcagg tctttataag accagtatgc aaaatcagct tgtgcaactg 60
caaaatcaac atcctgtgaa aatactgcca gagcggttatt ttcttttgca tatgttatga 120
tttctgagtc acattcttca aatgtggatc taataacatt acattttatt tggaagctac 180
acattatgac ctcaccgatg ttacaagctg gctttatatt atattcatta acatattcca 240
aaccattatc atctaaagta tcgaagattt cataaatagc catgatatca gaccttttcc 300
gagctaccca tctatcctgc atatcatcta tgttgcaccc atcaaaaaat gcaactaatt 360
ccacatcaaa cctttgcaaa aattctatga attcaccagc tttttgctta tacaatttgt 420
attgacctcc tgtcaaaaat tttttttggt cagtctctct aaatatttgt ctagagcaac 480
ttocatcgat cactatga 498

<210> 992

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 992

acactgtcag taatattgat aaaagtgggt agcaagacgg aaataatgtg cagcctactg 60
acattgcaga tgacttaaac tgtgttgatg tggatagtgt tgacactgaa acttactcga 120
aatgcgacaa aaacattaaa cttattgata aaccactcaa gaagcaaatt gtagttttat 180
cagaaaatga ttttgatgac ggctgtccaa aatcgaaatc taataataat aacgacccca 240
aagaaatttc ttctcatatt tgctaccttc aagatagcga ttttaataacc agatcagatt 300
taagtcggat catgactccg aaacatattt caacaccaga aataccaaag tctaacgcaa 360
ataattatgc gacttttagat cagagtttcc atttaggtca aaacgttcaa aatgcgcaaa 420
ttaacaaaaa taaatacatt tatatcgatc ctaataaaat tgaacaagat tttaacagca 480
atttaaataa tttaaaca 498

<210> 993

<211> 235

<212> DNA

<213> Ctenocephalides felis

<400> 993

aattgatcca taaattatga ttaaaagatt aagttactta agggataaca gcgtaattat 60
ttttaagaga acatatcgac aaaatagatt gcgacctcga tgttggatta agataatttt 120
aaaatgcaga agtttttaaaa tttggctctgt tcgaccatta attcttacat gatctgagtt 180
caaaccgggt taagccaggt tggtttctat ccttaatttt ttaaaattaa ttagt 235

<210> 994
 <211> 72
 <212> DNA
 <213> Ctenocephalides felis

<400> 994
 atcgatcttt ggccggctaaa catatcttgc tgagcgaagc cggccgtata gaaatatgtg 60
 gctttaagga aa 72

<210> 995
 <211> 206
 <212> DNA
 <213> Ctenocephalides felis

<400> 995
 aacagacatt agtcaccacg cgctcgacga actttgattt tttttccgaa cgacaatcaa 60
 gtaaaactgca cataaaagag gagatgagat ttaatttttg cgtttaatgt atgtaaatac 120
 ttttaatctt aattaatttt tgtcattcgg aattaaagca gtcacttgat ggtctattgc 180
 acggaccgta gtaaaactgcg ccgcgt 206

<210> 996
 <211> 260
 <212> DNA
 <213> Ctenocephalides felis

<400> 996
 aatggtgtaa aaactgtaaa tatcccattht gttgtcacca gccattattg atgatttaat 60
 tacagttatg aaactgctga tgctatgaga attaaaattg accaaattat tgttttattht 120
 tatttaaaaga taaatacata tatttaaatg gaaattcgtg gctctatgtc cctaattggga 180
 cttctattat ccataggaac tgctacagga gtgatattca cgttagaacc agaggatagg 240
 atttcattaa aaatgggcgt 260

<210> 997
 <211> 310
 <212> DNA
 <213> Ctenocephalides felis

<400> 997
 ttccggccgtg ttcttcatcc taagatgagc tcgggcccaag gatgcgcaat cgccttggga 60
 aacgacgacc ttttaacgaac tgtcgtccaa gcgcacacg ctgaaactat gactgtcgtg 120
 gggtgatggc gaactcattg ttgaacctta caaaaactct taacttaaca ataaatactg 180
 ttcatataaaa tcaataaatt atattaaaac taaaagcgat cgaaaaaact attttttttt 240
 aatttggttaa aacaatctta aaagattggt tagaccccg gaaacacgt ggtttgttac 300
 tgttgcaca 310

<210> 998
 <211> 59
 <212> DNA
 <213> Ctenocephalides felis

<400> 998
 tcctggatga gcgttttgaa attctgtcat tttacttatg atatcgggaa accacatgt 59

<210> 999
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 999
 ttgaaactat tcatttttaa ataactgtga caatctcata ttatattatt cacatatttg 60
 tatgctaata tagatottat atattatatt catttttaca angatgcttc tttagaaaca 120
 gatttttttt caaacagatt ttttaattgt ctttgaacat ttttcaaatt ttcttcttta 180
 attgtaacag gtagtcacaca ttctttctga tccttcatga tttgttccat aatanaaatt 240
 ttctttttta gaaagccttc ttgctctgct ttttaataagt tttcataggc tgccaatctt 300
 ttagctttca actcatcaca atatatatta gttagttttt gcaatgattc tttcctcggt 360
 atccagtga aatgatttgg tgggtggnnta tataacaatat tcaanttttc naatatacnac 420
 tcanatcttt tgtagtccca tctcctaang tatttcaaaa atttcttacg ttatcaatna 480
 antctttang taaagccg 498

<210> 1000
 <211> 231
 <212> DNA
 <213> Ctenocephalides felis

<400> 1000
 gcaatcatgc aacaataata aagtatctat ataatatctt acaaattgta caaagttaat 60
 catgaactaa atgtaatcct actaatataa atacaaaact tgtataaaat gttcgaatta 120
 gaattttggg aaagtgaaat aaattctcta taaaactaaa aaaaatattt ttgcaactgta 180
 tcatatattc cattgactca gaactcaaag actataattg ccgaatcacg t 231

<210> 1001
 <211> 247
 <212> DNA
 <213> Ctenocephalides felis

<400> 1001
 agaactactt gcatcttttt taggatgtct tttgccacac attctgcgga acatcacttg 60
 agcaataaat attcataatt ttgcgaattc cttgatttta aacaagcgca gacataatgt 120

atgtatatat gtatatatat atatatatat attgaatggt agagtcttgg atttggtat 180
 attttgtaga gtttogaaca agaatccaaa aataatacaa aaaaaaaaaa aaaaaaaaaa 240
 aaaaaaa 247

<210> 1002

<211> 297

<212> DNA

<213> Ctenocephalides felis

<400> 1002

cacctatgta taattttata tatatatata taaagaaaat taaatctcac tcgattttta 60
 agataataaa ataaaaataaa gttacattta taataatgta agattaaatt gtaaattcta 120
 atttaattat atttcaaatt aaatatgta atgtcgaact ttaaatgcaa tttcatttat 180
 attgcacgat ttattttgta ggtcttgagt aaggggagct acgataacgc gtatcgcggg 240
 tgctcacgtg acggctagtt agagacggtt cctcaacacg gcccttagag gagctgt 297

<210> 1003

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1003

acgcgttgat taattttgcg aggcagcagc ccaagccatt tctttttaat tagtagctaa 60
 ttagacaaaa ggttttgtca aaaatcctga gccgatttcg aaaattttca actttttcaa 120
 aaatatctgt ttggtattgc ttccccgtag ttacttgta aaataaatta aaatagtttg 180
 acaattttgt agaaaaaata tttcagattt gtaaaaaata ttttaataaa gtattgaatg 240
 gtcggtggacg atgacaaatt ttcaaacttt tatgttcaca attttaaaat ttgctgcac 300
 tcaattcttg tagattaaat acacatatct gaaagttttt gcaacttgtc ttaagccact 360
 aaaatgccac ttacacctag ttaataaag ccaaaccaca tttgtaaata agtatacaga 420
 aaaacattcc aaattttata gataatacat aatctcagat tatttaagtg gtttagaatg 480
 gttgccaggn agaactaa 498

<210> 1004

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1004

tcgttgattt agagttattg tattacatta caataaattt taatttttag ataaattgac 60
 gtctttttac atatgttttg aaaatatctg tattagaatt ttaattacat actatcacia 120
 attaataagg tgtatataaa tatacagaga aactataatt tgttttaaatt ttatttcgtg 180
 tcgcttcgtt tcaacaaaca agcaaatttc catgaacaat ttattggcaa catttataca 240
 aatagctaaa atttattcta tttttgaata tcatgaatat ttaaaactta aattatttta 300
 ttataacgat atacaattat taactttttt tatatacctt tacgtttcaa atgtttttga 360
 atattttggc ataccttaaa aaaattgatg tatgtgtgtg agtggatgcg gatacaaatt 420

ttcgggaaca ccgatcaacc gatttaaata aatcaaaata cattcgaata gtattaggca 480
 ggtctagtcg ttccaaaa 498

<210> 1005

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1005

aaatctcgat agttacgcga ctcataaata attattttaa caatgaatgt taaaaaaaaat 60
 taaagtttgt aaatataata tatgtattgg attaacttag ttaattctcc ctgcgaattt 120
 tatactatag taaccagaaa caaaaatcag agtgtgtaaa atgtaaattc atatattttt 180
 ggtaaaaaata caatcaagat ataacagtgc cacaatatta ttaaaatacg tatttgtgac 240
 gaaacctaaa gtgtagtcag aatataaaaa acaataatat ttataccttc aaatgtatgc 300
 tttgaaaaaa agcattcgaa gattttgttt aaatatattt ttaagtccac atttatgttt 360
 gttcgttcaa ttaaattatg tttcttttgc aagtaagatt atgttgtaga tattgtcaca 420
 aaattagtat attttatgta attttaagca tattgntatt ttttgaaaaa tcggactatt 480
 gtcacaaaaa ttaaataa 498

<210> 1006

<211> 67

<212> DNA

<213> Ctenocephalides felis

<400> 1006

tattcgtagt atcaatgaag tcgtccgcc taagcattga tgaattttgg acaacgtagc 60
 atattgt 67

<210> 1007

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1007

catttgattt gatttatattc ttgagtttat ttacttcac ataacagcaa cataaaggat 60
 attccaaaaa atatgtgcga atgaatttga tagttttcat cacctgtgga tgtccaatat 120
 cgttttttaa atttttctca catagtgtag taagtccttt aagaaagtca ttgcacaacg 180
 ttttggaatt taattccaat aacagataat tctctggata gttactcgga aattgtatgc 240
 acaaaataat tgtattaaat gatgtcgtgc taatttctac acgaaccatt tctccgacac 300
 aagtaataag ctttgtatta tccaaagttt tctcacatag ttgtcgaaact gttttaagtt 360
 catcgtctaa tgcagccata cttcgttttc tctgtataat gtgttatata attatacagc 420
 aacaaatgca gctgtttaga aatttttagt gaatatgagt atgatataatt ctttagaaca 480
 tgtaagctaa ttagatta 498

<210> 1008
 <211> 95
 <212> DNA
 <213> Ctenocephalides felis

<400> 1008
 tacgagtga cattaacgc tcaaggtgta ttcgacgtgg cccgatatgc ttgtgcagct 60
 gagttatatt tcaacagcgt tctgcagcag tgcgt 95

<210> 1009
 <211> 406
 <212> DNA
 <213> Ctenocephalides felis

<400> 1009
 gtttgcata ttagttcggc ggtaagaaat attttttta tagcttgatg aaaacaagaa 60
 aatatttaat cgagtgaatt taaatataaa aatatatata tagaattata tgacaacaaa 120
 aaatgagtaa tgtagacgtc gtcgtgtttt cgtttcttgt cattttattt aacatttctt 180
 acgcttatta catattgttg tatatacata catatatata aattaataga agttttatcg 240
 aaacgatatt gatgaaatgt gtcttgtaag gtttttttta attacgaaaa aaacaaaaaa 300
 tgtgtgaaac tgtgattcct gcctttctcg tgtaaaacgg cgatgctaga aaatagaaac 360
 attaagcgtt ctttccattt aattaaaaat aattactaaa aagctg 406

<210> 1010
 <211> 84
 <212> DNA
 <213> Ctenocephalides felis

<400> 1010
 taattaattt taaaaaatta aggatagaaa ccaacctggc ttaaaccggt ttgaactcag 60
 atcatgtaag aattaatggt cgaa 84

<210> 1011
 <211> 228
 <212> DNA
 <213> Ctenocephalides felis

<400> 1011
 ctcgtaaadc acttggtcac cagtttgatt tgtggtagtc tcattttcta taggnataaa 60
 catcagntgg ttcattgaaa gggttgtttg ggtgcttgtc ggcttcgtcg aagggattgg 120
 tgcttgtttc gggttctggt tcgtcgaaag gatttgctgg aacgtcttgc ttggcgtaac 180
 tgggtgtccc gtagacttgt ttogaagatt caccaattgt tttgacgt 228

<210> 1012

<400> 1015

atcctttttt tctatgaacg gtttttaggta acggagaata atgtaaggca tcactaaagt 60
cgttttttatt tgtgatttca tgattaggct cgggtcttct gacccgcata aattgacccc 120
gcaattttgc ttcctttgcc tcgtttgatg atacagcccg ccaatccaaa aataataatt 180
ttggtaaatg atgt 194

<210> 1016

<211> 401

<212> DNA

<213> Ctenocephalides felis

<400> 1016

tatcatcaac agcaacactg tgaacctttt ttcttctcac gacaccgttt atcgcggcac 60
cattgggtcat atccctatca atagatgtcg aatctaattg caggtgagta ggtctgggag 120
gagcagacat agacctttcc aaaagttctt ctgtcggttc aacgttcatt ttcattaaat 180
coctcatccg tggagggtttt actggaggcg tgctattacc ttctgaagggt attgtctcat 240
aaatggcttc cgatgatgca cttgatgccca ctgtttttga caataattca ttgtcattaa 300
tgactgcagg ttcccttttg gcagctatat atgactcagg gcgtattcga tgtgatcgcc 360
tcgattctgt cgtcgtctga gattcagctg aatgggaacg t 401

<210> 1017

<211> 422

<212> DNA

<213> Ctenocephalides felis

<400> 1017

tactgatttc aaaaacaaaa tcnaanagaa atatactatg aagttcaact gtaatgggac 60
ttagngcaaa taaatgcgag ggagtgcagag aaagagaaag agaaagagag agtttgaata 120
aattatatta actattgcna gaaaaaaaga nttttaaaca attatgttaa ctaatgacaa 180
tatatgntcc attcatcana tccgaaagac tgcacaanat acttattctg naaagatgggt 240
aaaggtnagg ttttcgaatg cccacctaac tatgtatatg atcattctaa aaatatgtgt 300
aaaaagaaat cagtcagaag ntgattgcac cgtnatgaaa tgcacaaatc ccaattcttt 360
ataacctatg caccggancc atcaatntat gctttgggca atgacaaatt gcaaccgatc 420
gt 422

<210> 1018

<211> 233

<212> DNA

<213> Ctenocephalides felis

<400> 1018

taattaattt taaaaaatta aggatagaaa ccaacctggc ttaaaccggt ttgaactcag 60
atcatgtaag aattaatgggt cgaacagacc aaattttaaa acttctgcat tttaaaatta 120
tcttaatcca acatogagggt cgcaatctat tttgtcgata tgttctctta aaaataatta 180
cgctgttatc ccttaagtaa cttaatcttt taatcataat ttatggatca att 233

<210> 1022
 <211> 319
 <212> DNA
 <213> Ctenocephalides felis

<400> 1022
 atttatttgt tgaatatttt atatcaattt atttttgata attattttga taagctcaat 60
 ttgttctttg tgacaataat ttaggcataat aaaagaaaac cagtaaaaca atacaataaa 120
 atcaccaaca attagtttgt ttttcttctg tgttattaat catcagaaca taaataaatt 180
 ctataagtta ttttgatata cattattgac tattagatac aattttattga atcaagttaa 240
 ttggtcgtaa ttttttacta tttttatatt tgtaaataat aaattaagat cttgctttta 300
 gaagtcttca atgtatagt 319

<210> 1023
 <211> 518
 <212> DNA
 <213> Ctenocephalides felis

<400> 1023
 aatttttgga atactttgaa atatattctt aaattaaatt ctttaacata tacataccac 60
 tttattaatg gagttttatt tggcatgcta attcttccat taccttggtg attcattatg 120
 tgtagattg gcgcctgtat ttattaggac gaagaaaatt gaacatgcca ttccttctat 180
 tattttttat ggcatttggt gtggtattgt cactaccatt tgggtgtatct gaagtttctc 240
 ttgtgtcaga caaatgcaac aaagtgcac gacctccatc taaacgacta ggccccaac 300
 ctgaagtga tgcataattca ccagtatgcc ttgcagact gtcattagca tgtgatccat 360
 ttgctgaaag gctgtttggt tgagacctat gccctgcac catttcatca tgagaaattg 420
 tattccgatg ataatcaggg tttgttgatg ttctaattgg cacaggtgga ggcggtggc 480
 taacgctgac agtgacagta tttgaatact ggggtggt 518

<210> 1024
 <211> 112
 <212> DNA
 <213> Ctenocephalides felis

<400> 1024
 ctggtttgca agtcattcca ctggacatg tttccaatgt tgtttctaag aaatcagngc 60
 caatcgcaat gcaaagggtt gctgtctcac aatcctggca ctttatttct cc 112

<210> 1025
 <211> 304
 <212> DNA
 <213> Ctenocephalides felis

[illegible]

gactctc

127

<210> 1029

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1029

aaaattccaa atttttagttt ataaatcatc ttatatggaa actgtctgca acaaaccaga 60
ttttaaaata gaatccaata aatacggata taaaatttta ttaaaatata caaacataac 120
aaatgtcggt aattactaat tcaaagtttc atacgatatg tcatatgcta atttttagatt 180
tattatcata aataaattta ttatttaa atatttagag gaaaaaaaaa tattttctca 240
atttctctct tcaaaacttc ttgtcacttc tccggctcca tacagtttta ataccacttt 300
tttcacaaaa ttcaacattt ttgtaaaatc cattgtgaaa attcatttgg ctgtttatta 360
aaagacatca tcccttcgga atctgttata taccocaaac cagcactctt caaatacaca 420
aaatcctttt tcaagttaac ctggaacgtt acccatattt ggaagttcct tttggattca 480
acattgaatt tgttttgc 498

<210> 1030

<211> 454

<212> DNA

<213> Ctenocephalides felis

<400> 1030

acaagtanta attgtttata caatatgata catagttgaa aatagcatga aatatcatta 60
taattttgaa aggataaatt ctgttgacat ttttcttttt tttaaatatt tttcatatat 120
atttgatttt tgctgaacat tataaaattc atgaattata gggaaataga atttgtaaat 180
ttaaccaaac ttaccaataa gtcaacatta tatgataagg aaatagtaaa tatgacttct 240
taaaatatca gttattaaaa tttggagcaa tatgcattat caataaattt actggaattt 300
ttatgcctga aatcaaaatg ccagaatagg ctgtgaatgn tttaaaatact ttttgatagt 360
tgatgatgga atagctgatt tgtgaatgat tctactgatg natatttact aatactaata 420
taaaacacga ananannngn anaaaaaaag ctgt 454

<210> 1031

<211> 154

<212> DNA

<213> Ctenocephalides felis

<400> 1031

tgatagatgt attgcaataa gttatttttt tatgaaagat aatgttcaac actaattgaa 60
atagattata agattttcac tacattttca tccattttt tctacatcat gaaattctgt 120
attgtatgta attcattatt tttaagttaa atgt 154

<210> 1032

<211> 285
 <212> DNA
 <213> Ctenocephalides felis

<400> 1032
 atattttatat tattatgata tatattgtta aattataaca atatgattat ttacatacat 60
 attttatttat ttatcttcta ggaactcttt atccatatta ttgaattttt ctactaaatc 120
 tgaaggtatt tctagagatt ttaggtcatc tgtcccaatt tcttcctcag ttcttattag 180
 aatgtcgaca acattctcac aagcaagcaa actggccttg tcaccaagtt ttaatgaaac 240
 ttgttttgtt tcccatttgt ggtattctct taatatttca taagt 285

<210> 1033
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1033
 atcgaaaaca aattcaatgt tgaatccaaa aggaacttcc aaatatgggt aacgttcgag 60
 gttaacttga aaaaggattt tgtgtatttg aagagtgctg gtttggggta tataacagat 120
 tccgaaggga tgatgtcttt taataaacag ccaaataaat tttcacaatg gattttacaa 180
 aaatggttga ttttgtgaaa aaagtggat taaaactgta tggagccgga gaagtgcaaa 240
 gaagttttga aggagagaat tgagaaaata tttttttttc ctctaataatg atttaaataa 300
 taaatttatt tatgataata aatctaaaat tagcatatga catatcgat gaaactttga 360
 attagtaatt aacgacattt gttatgtttg tgtattttta taaaatttta tatccgtatt 420
 tattggattc tatttttaaaa tctggtttgt tgcagacagt ttccatataa gatgatttat 480
 aaactaaaat ttggaatt 498

<210> 1034
 <211> 88
 <212> DNA
 <213> Ctenocephalides felis

<400> 1034
 acaggataca agtgttctgt ctgccataa taaaaaacga cataaacgta gtaaatacga 60
 taagtaatat gggcatcatn tatcagcg 88

<210> 1035
 <211> 394
 <212> DNA
 <213> Ctenocephalides felis

<400> 1035
 ttagcccaag tttcacagca ggtttggcag tcaactataat agtatgctcc ctttcatttt 60
 cccctgaacc aactttgnat gtgtaagagc cagcatcatc ttgttcagtt ttttcaataa 120
 tgaattgatg ttcttccttt attaatgat aacggtcctt gagatcattg atttcttcta 180

cttttttctc atctttaaac cactgatcaa caggaccatc tttcaatgga caggttagaa 240
ccaatggact gcgaatatca aaaagttttt gcgacgtggc ttcacottct cgggcataaa 300
cactgctttg ggccaataat aataaaattg cactacacaa aaactgcttc atattttattg 360
aattttcttc cctcgtattg aaaaagttca taag 394

<210> 1036

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1036

taggaaaaat tatacttgat aacacttcaa attcactcaa aaatataaaa gattttattt 60
aacgatgtta ctctggtgaa cgaggctttt ttgaaataa tatacatata ctaagtatcg 120
agaactgttg cataaaactc aaaataatta ctgaagcatt aaaaaatttt gtcgccttca 180
aaatagacct tattcgaagt aatgaaaaca tgccaacaat taatccaatc ttcaaagcat 240
cttttaaacg cctttataag gatattcttc agctcctttg gcgttttttt cttacaaaca 300
ttgttagtgg aatctatcga tccaaagagg tatctaaca tagtattact tgnaattcta 360
tacttaagta tccatgacaa taaataattt acagagggat agatctagtg aatacgttgg 420
ttgoccatga tttttcatga gtttatggcc nnaaaagcgt tcacaatata ggcgttgtgt 480
gaagagagtc aacaatga 498

<210> 1037

<211> 415

<212> DNA

<213> Ctenocephalides felis

<400> 1037

ccacatgaaa ttttaaatgg aaagtatgaa atcagtcgca ttcaagtatt taacaacatg 60
ctatgatagn nttattaaaa caaccaaatt taccatgtag caagtcttcg caaatcatca 120
catttttttt caacaatgga ttttcagtga cacttagaac aagtggaaca gaaccaaagt 180
taaaatatta tagtgaaatg tgtgcaaaac cagagatgaa ggatctagtc aactgaagc 240
aaactgttaa agaaatgata gaagctgttt gtcaagaatt tcttcaacct gaggagaata 300
gattaatatc aagagaaaaa tagatcttaa ttaaatagac tttaaataat tagcacaatt 360
tatttttagc tgaagagatt tcagttttca cttagctgaa ataaaacaac tattg 415

<210> 1038

<211> 109

<212> DNA

<213> Ctenocephalides felis

<400> 1038

aagctggctt gccaccgttt ggtcctccac catttgaagc aaatgttggg aatagaacag 60
taacattcgt tgaaatgtgc agcgacctag gatctgccat catagtgtg 109

<210> 1039
 <211> 440
 <212> DNA
 <213> Ctenocephalides felis

<400> 1039
 gggnaagtag cgtgtgttgc ncttctgaaa tnantnggaa accctcggaa cttntngggg 60
 nantngccna ggacatncta tgcaaaataa attagtataa caatataatt naantatttg 120
 caatctttgc tgtgtataaa actangggnt tatnggntga aactgattta aattcatitt 180
 tgaactttgt tcttataatg tgntcgtcat tagctaggaa tgttcctaca tatactttta 240
 cattcaccta aatataatata tatgtaattc tatatgtata taaagttttt gatctgtgtt 300
 ggcgaggtaa tattggcttg ataaacagtg tttttaacat gatgaatgtt caattgttaa 360
 atcttgtgaa aatgtaaatt tgcaatttca gctgtgaatg ttttctggct gcctagcatg 420
 tgtattgcat catatggngt 440

<210> 1040
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1040
 tttttttttt tttttttttt ttttttttat aaacaatttt tatttgtcaa aaagctacat 60
 aagctagaac cattngacca caaataatat atcactagac attttttagga agtttacagt 120
 ttgttatata attcttaaac taatttagtt atcagtaagt ttttaagcagt cggcacagtc 180
 tttacggact tgtactaagt tgnccctaaa ttctttcaag gctccccttg cgcattttcc 240
 gacttcacgg actaagttgc ccaattggga ccagggtttc ttgagtgcct tggccaagtc 300
 ttttgctcct tcgtgggcag cttgggagaa ccctttcaag caaactctgg cttcatcgac 360
 atcggtgcg gcacaacgca ctccctggct tgnctctga gggcttcggc gtctccctgg 420
 cttntnttca gcggccaacc attttggcga acttgggtga attcatcaog tttggcatct 480
 ntgnaacctt gaccttacac 500

<210> 1041
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1041
 attagatatg gtctgaccat gattgatata ttttgataca ttttaggctt ataatatann 60
 aaaatacagt caatttaaca tttgatatta catatattaa atcaacaata tctaaacatt 120
 gaaattagag aaactgaacc tgaagatagt gatttaagta taaattctaa gctagtaaag 180
 aagatccgaa aaaatctgat aatggtaatt ttaccgctcc aactaaatat ccaaaattcc 240
 agcagaattt gtaatgtaaa tattgattct gataaactga aatcaccagt aaaaaaatc 300
 caagaagttc taataatggt aattttacca ctaaggaata taaatgctgc tgcaagagaa 360
 gatttgacta atttcaaaca gaatacccca tcgaaataag cgatcagcaa ttgaagaaga 420
 taattgtgct aattggtgat ggtcttaatt ttatgatcgt ttatatatgg taataataag 480
 tcttataagc ttttgatt 498

<210> 1042
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1042
 gattgctttg aaaaaagtgc agaatttcca aaatatgtca aaataaaaaa acattttttt 60
 ttcaaaagng gtattttctt gtcaaaatag tttctcaaaa atgttaatcg tttttttaaa 120
 aaataataat ttttattacg ggaagtcca gcaatttgcc ttaagacacg atgccatgcg 180
 cccactagtt ataaaattga ttttagataa tgactttcaa tacgtcgcag gaacatttag 240
 atgcggaatg cgttgcagtg gttaaatcat ccatataatt tgtattagct acctaattga 300
 cttatacccc aaatacctcc acattttcag ttatttttaa ctttctgtag ggtaaattat 360
 agtaattgtc caaaaatcga aaataaaaaat ggttgcatat cttcacgctt tggcatacct 420
 tagaagaat ggatttatgt gtgtgtatgt agtatgtatg tatgtataga gacaattttt 480
 ccccgacgtt ttcgggag 498

<210> 1043
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1043
 aacattgttg taaataatat gttctcgatc caatatacaa tactgtagta aataatatgt 60
 gctcgaattt aaagaaatgt cggggtcgt gtaaaactaca tatatgatga ataataaat 120
 catcaaatac tattgggtat aaacaatatg cattgaatgg tccagagtat aaataataac 180
 tactttacgc ccccggttg gctcgaacca ctaacctttc ggtaacagc cgaaagtgc 240
 agccaattgc gccacggggg ctcttatcgc ttcttgataa tagtaacaca tctcaataaa 300
 cacattttac acatgatttg ccatttttagt aaataatagg cactcgattt tatagaaatg 360
 tcagggtcgc tcccggtgatt tgaaccogaa acctcgcac ccaaagcggg aatcataccc 420
 ctagaccaac gaaacacatg ttctatccag tgcgtgttg ggtgcatcca atgtcaacat 480
 tgtagtaata atatggcc 498

<210> 1044
 <211> 437
 <212> DNA
 <213> Ctenocephalides felis

<400> 1044
 gattttcaat acaaagtgga agatccgcc attcaacttt catttggtgc caatgaagca 60
 ggagatgcat caggaaaggt gaccggcagc tactacgttt tactcccgga tggaagagtg 120
 atgactgtcg actacgttgt agatggcgaa agcggttttc aaccgaaaat ttctttcaac 180
 aaatagatca agctgacaaa ggaatcgaat cacgtaaact tcattaacaa catcatttca 240
 tagctaaaaa tttaacaac gaaacatata tactcatgaa ttactgccta tattattgtt 300
 tatactgcct aataaacaat ttgtgattaa tactaattaa ttactactg ctaaacagaa 360

gaaatatatg acgaagctgt gaaacgcaat aaagttttgt aaatatattg cagattcatt 420
 taaactaaca attatgt 437

<210> 1045

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1045

taattaattt taaaaaatta aggatagaaa ccaacctggc ttaaaccggt ttgaactcag 60
 gatcatgtac gcaattaatg gtcgaacaga ccaaanttta aaacttctgc attttaaaat 120
 tatcttaatc caacatngag gtcgcaatct attntgncga tatgttctnt taaaaatant 180
 tacgctgtta tcccttaagn aacttaatct tttaatcata atttatggat caantattca 240
 attatattatg ttttaataaa aaaaangttt tataaattnt cctatcacc caataaaatg 300
 tattaatata aataaantnt aataatattc ttaaaattaa tctatattna tatataaaac 360
 tttataaggg tcttctcgcc ttttaataata tttacgctnt ttaacataaa aattanattc 420
 tataacaatt ntattaagac agttaatatt tcattcaatc attcattcca gctntcantt 480
 aaaaaactat tgatatgc 498

<210> 1046

<211> 582

<212> DNA

<213> Ctenocephalides felis

<400> 1046

cctacacaac tcganatact cataaattat taanttctaa tcgattncct gaaaaagggc 60
 gttgggattg gtgaaagtgc atttattcgt tacatttctg ataacttaaa aactatttgc 120
 ggaaaactaa aaatatgttt ggagaaaata tagaaaattg aatagtctaa aacattttcc 180
 taacatagga agaccctaca gcaactcggc atactcaaaa aagtttggtg aaaagttgat 240
 aaatattcac agcgcttcac tgnnttggtc ttgagtttag gaaaagtgca tttatttata 300
 acttttgaac ggggttatttg attggaatga aatattcggc aaatttatag aaaattaaat 360
 aatctacaaa nttttctttt accgcaacag aaaccaacga aatattccct tcggctaata 420
 cggtgtaaca tcacaaaatg natcgaatca atattttttt aaaattgaaa attgcaaag 480
 ataaatggaa ttggatttat atttttttct aaaaangaat ggggaactat tccaaggaat 540
 gggagaatgn aagaaaaata atattattcg atngngaaaat gg 582

<210> 1047

<211> 472

<212> DNA

<213> Ctenocephalides felis

<400> 1047

cccggnttgg gtgatcaaca ccaaagacac gtcagaatt ggcgttccat taggtaattc 60
 caggttcacg agagtcaaat catcaaagg gtagcgttct ttaaagcggt tatccaaaga 120
 gtcccaagta ttatccaatt cctcatccac aaccaaaagga tatgtattct tcgaatccaa 180

actaagttta tcagtgcctt ctacaactac agtgactaca gctttaggta attgaaaagg 240
attcaattta ctactccgt cccattoagc agaactctgc tccgatgtca atcctaaggc 300
tacggaatac aattccttta acaaagattg gggtaaagga gtctcgctt ggaattggac 360
tccatttgga gaatttaata cactcagttc gccgttgcaa tatatggatg ccacaagggg 420
cagtaaataa attagaacct ttgtcacatt ttattactta cggataaaac gt 472

<210> 1048

<211> 221

<212> DNA

<213> Ctenocephalides felis

<400> 1048

aagcagaaga tgagattaat ctgcggaggt tgttgacaaa ttaccagaag atctggncgg 60
aaaattgaac atttcagcac ttccttcgac agaggaagca gaaaaactgg ccagagaaaa 120
atgcagaaag gaaagtggaa gcgacgatgc ttacgataaa gcttttgccg ccaaagatga 180
gctgaagact tgtttcacgt ctttgctgaa tatggaggaa c 221

<210> 1049

<211> 427

<212> DNA

<213> Ctenocephalides felis

<400> 1049

ccaataatta catttaattg aaagtgtcat taaaatattg accatgcatt atacaaatta 60
tatttataat tatngcgtta acaaaataaa ataattttgt gctaaagcct ctgcaataaa 120
aagaactgac tcatatgtat aaagatttaa ttgtataaat gcaatacaaa ttaattacag 180
ttaaaattta agaacatatt gcatgacagt ttgttataaa gcataaatga ctgcttagtt 240
ttttttttta atgaaagttt aagacatcta ttataggaag atatatggcg gaaacagaat 300
cattacatat acatcaacat caatgtgcat tacttttttt ttttaatttct cttcagatag 360
aatacgatga atataaacat aagtatgaat tataaaattg tattgtatac tgtataaaat 420
taaattgt 427

<210> 1050

<211> 570

<212> DNA

<213> Ctenocephalides felis

<400> 1050

aaatacaagg ggttgatatga aaccaactga tgactgtgat gatatgaaat gccaggagtg 60
caaaggtaac ctttgtaatg tcgatgtttt cccaagaaat cgcagggttt gcaacgctaa 120
agatgatgcc aaggaagttt gtctcaagcc acaagatact tgtttgagta ttttaaatgc 180
acaagggtgat gccataaaat tagggtgcac cagcaacctg ttcaagaacc agaattctgaa 240
aaaaatgtgc gagaaaaaac cagaacgttg cccaacttgt gacaaaaacg aatgcaatgg 300
tgatgcaaaa aaacacgaat gtgtttcttg tgatgaaaat gatgaaaatt gccttgacga 360
ccctgaaaaa gtcgagacga agaccaaatg catgggcaaa tgctacttag atattgacgg 420

agataaagtg aagagaggct gcaccgacac ctacaaatgc gataaggaaa cttgtctgga 480
atgcgaggaa gagatttgca cgagcgaaat gtgctatgcg taaattgttt aaataatttt 540
tgcaagtttt aaataaaatt tatcaacttn 570

<210> 1051
<211> 386
<212> DNA
<213> Ctenocephalides felis

<400> 1051
atagatgnac annctnactn ncgaaaaccc cgnocnccggg gcagaggcgc gntcaagcat 60
anggtctttg gtatttcgtt atggcggcga aaatatatcg ataatatatn gggattgggg 120
tataggaant ganttaatat tttattggaa acaaaagttt aaaatagttt tgcttaacta 180
ttatttatta aataattatt atgcatcatt ttaaaatcag tcatcattca tcataaatat 240
cgatattcgt atttcaatat atcgcacacc tcaattaatt tatgtatcaa ttatattgat 300
tganttatct gcgaatttct cagttatgaa aatgcagcaa tgccctgtgat agctcttcct 360
agaataagtg cgtggatatc atgtgt 386

<210> 1052
<211> 537
<212> DNA
<213> Ctenocephalides felis

<400> 1052
cctctctcag ggtaaagtga tatgagctga tttggtttca tttatgcaaa tcttccattt 60
ggcaagccac atttgtagtt tattgatatg ttcttgcggt tgtcgggaag cttgatcagc 120
actgtgatta tttttaaaagg tttaacttat cgaaatacgg aaaagtcaaa attcgatttt 180
ctgaaaattt cacactaggt gggcttctta atataagggt gtagtgaccg aggtcgctaa 240
cgcgccggacc tatgtggatg gtgtcaagtt ggacggacct gtccaagggc agtagtgcta 300
cacattgnat atatgtatta ttttgtatta attttattca attacaattt aaaacaagct 360
gtttgaaatg aaacctttgc ttccatattg tttactccag aatctaaaat tatgaataaa 420
tgaatattct agtgaattat ttgtaaaagt tcttcttcaa cttagtatct aaaatacaac 480
aaacaaactg cgcataaatc gagaatatta ttagacatca tgcagagtcc ctgccgg 537

<210> 1053
<211> 331
<212> DNA
<213> Ctenocephalides felis

<400> 1053
ggtctgaaac actttcaaac aaactcagaa ttatcgatga ttttttgga atgcaaaaaa 60
tggtctgatga gctaatatta ttggcacctc ttaaatcagt cgtaaccatt gaaacacttc 120
gcaaaatgtc aaaaaaagga ttgacttatg agatacttaa aaaagcttac gaaggaaagg 180
gagaagaggg ccttgaacaa attttgaaaa cttaaagtaac aaaggcaaag cttactataa 240
acaatgttgt ggtgtttttt caaaaacatg caaatgatgt ttaatgaccc ttatttatca 300

gaaatatatt ataaatattt aacatttttag t

331

<210> 1054

<211> 344

<212> DNA

<213> Ctenocephalides felis

<400> 1054

cagngattca tttcatattg gtatacatat ttctcaatat gncatttttc taaactttgt 60
gggacagnaa tataccaagt tccttcogta attgntcatc tccaatattt ccattatgag 120
gaatgcttct aagcattttt aaataactgn ctggnaatcc agattctaac gctccttgaa 180
taattgnctc aaganatata aaactaggct tcctatcttc tggaaaaggn tcacccggtt 240
gcaacggagc aggcagttta ctttgctcat atattcggca cgatacattt tcgccactct 300
tagttttgat gnttacctct ttagcaaagt atgtgtttta atgt 344

<210> 1055

<211> 264

<212> DNA

<213> Ctenocephalides felis

<400> 1055

cccatattga acatttattt ttagcgacta cattagaaat gtaatagata aaaatgttat 60
aaatctgcga atataaaata ttgtattttc ataaagaata ttattattct ttcttatttt 120
ttgttcatag cagaatattt ttttcgcccc aaaaagccga cataatacac cactaaagac 180
ttgtcgaaag ttgtggcgct cgggactcgc aaattcaatt tgtgcacaat cgcgcggtga 240
aatgcacaat ttccatttct atgt 264

<210> 1056

<211> 647

<212> DNA

<213> Ctenocephalides felis

<400> 1056

tatacatatt tcagtgagan atcagcaata gtttatgatt ttattgacgt tgtgaacgga 60
catgtgntct gggngtttat aaatttgcgt atagaaacaa taataaatta cagtacataa 120
tactgatttg attttactac cgnaacgatt tgcttcagat atttccagaa aaatgttagt 180
tttcatacat tttatttaat ttaatatctc cgacttggtta ttactaagcg aaattttctc 240
tcttttaaat atagaattct ttatagtatt cataatagtg aagctttaaa gtatttctct 300
cactatcacc cttttttata caaacgcatt ttgagaagta acgtgaaagc ttactttcga 360
attggtgatg nttctatgaa tacttatatg tattataata tgnattaaat tgaatttttg 420
cgtttcaata gaacttcaat cataaatttg aattggggtt aatattggtg ggggttggtg 480
tattaaaaga cttcgatatg aaaaaaatca atgggncatc aaatcctagn aggatatttt 540
atgnggatac ctagcaccog caatggnggn aatgggcaaa aactgggtatg accccgattt 600
ttgacgaatt tttggtgggc gatggtgnaa actaaaaatt tntcgct 647

<210> 1057
 <211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 1057
 ctcaatgaaa tncctattnt gntctttttc tgcttttacag gatttaatgc aaactgnngg 60
 catannnaat tggaataact caaatcangt taaatgatct atttcagata aattattaca 120
 gtatcttttc atnctaaaaa ttntatnccg ctntacgcan ttttaaaacg gtctctgatt 180
 attttaatca tnatttgtaa taattaatatt aatgcttatg caagcattct nataatactg 240
 taatttaaatt attgnaanaa ttaaatgttt ntaggtttng gactagtgtg tataacagat 300
 aaattaatat attattgtng gattgtatatt aatnntttta agaataattaa natcagtgtt 360
 tggnttatat agttngcaa tncgtgtctaa agtacctggt tatttttnatt tatttttagga 420
 tcattatgaa gcaattgcaa ananttatatt ncaaattttta atttataatnt tttttgacca 480
 ngtgcccaatt tacttgnc 499

<210> 1058
 <211> 310
 <212> DNA
 <213> Ctenocephalides felis

<400> 1058
 tttttttttt tttttttttt tttttttttt ttaatgattt aattaattta ttntaagcca 60
 ataattgata ttaattatgc attaatcatt gnatttatac tttcctagaa aactatacat 120
 cacatgttga aacaaattaa ggttcattggc ttctcgctt tccttagcgc ttgttttaaa 180
 tttgatccat tctttccgaa tcttgttact ntttggtccc catttntcat tgggagtga 240
 cacgtttttc aatgtatcat taatggaatg ttttctattt ttcaaataata tccaaattgc 300
 ccaaagnggt 310

<210> 1059
 <211> 215
 <212> DNA
 <213> Ctenocephalides felis

<400> 1059
 atctacaaca gcaccgataa cggcaacaac tttnccttgg gcacctgctg ctgctttggc 60
 agcataactc ctgctgttcg ataaaatoga tgcgatttta cccgattctg ttttgctcag 120
 ggttcgcaaa gtggaattga ttacggagtg catottgtaa taaaatgtat agccagttga 180
 gttgaattaa attgatctca cctgtaagct actgt 215

<210> 1060
 <211> 275
 <212> DNA
 <213> Ctenocephalides felis

<400> 1060

agcaaaacgt ttccataact aggatatacct acttgaaagt gatggctatt gttggtaactt 60
attgcatttg gtccaaaaat ctcaggctta taatattggc ccacagaaga atatacctggc 120
ctgtactgag aaaatgcgta aggtggtgga tggtaatcac agttcgccca ttggacaatc 180
gagatggcca ccaaaaatat tacagctttc attttagtca cttggtgaaa taccacgaat 240
tgaaatattt caaccttcgc aaaaggagct tgtga 275

<210> 1061

<211> 330

<212> DNA

<213> Ctenocephalides felis

<400> 1061

nnnaagccct ttngaaaccc tnggaangan tctggcgccc ttcccgctac atatacnaagt 60
taatataat tatagcttct aaaataattc nntcacgatg tttattttgt ctcaacggtc 120
aaaataaata ctgatttttt tttttaaatg taaaagatca ataataatg aagcaaagat 180
tttataaaca tttttgctaa atttttatgt aattgaatta tttttcatgc tatatataat 240
ttatattggt agttaattat tagagatttt ctaaaaaaaaa atgatctaaa atttggata 300
gaacaaattt ttcattggcg cctaaattgt 330

<210> 1062

<211> 126

<212> DNA

<213> Ctenocephalides felis

<400> 1062

tttactactt cagaattatt tattttotagt aaacaacgaa tttaaacttt tagaatattc 60
aaaattaatt gcgacaagca atattaccat gcaactttga agattttaaa aaaaagtagt 120
taaggt 126

<210> 1063

<211> 116

<212> DNA

<213> Ctenocephalides felis

<400> 1063

ccgtttgtta tatattggca tacaatgca ttaagattag gctctgagac agtgattgaa 60
tggtattttt gttattttta ggaaatttaa taaaataatt attaaatcga aaaaaa 116

<210> 1064

<211> 333

<212> DNA

<213> Ctenocephalides felis

1. Personal Information	
Name	_____
Age	_____
Gender	_____
Occupation	_____
Education	_____
Marital Status	_____
Religion	_____
Political Affiliation	_____
Current Address	_____
Phone Number	_____
Email Address	_____
Emergency Contact	_____
Medical History	_____
Current Medications	_____
Allergies	_____
Family History	_____
Genetic Testing Results	_____
Insurance Information	_____
Consent	_____
Signature	_____
Date	_____

cattgcgcac tcottacacc tagtgagttc agaactgtta tattctcagc tcctgatttt 180
 gtgaaaagca tatattcttc taaaggntnc atagtatgat tgttgacttc aatatatata 240
 tttgagaggc atcctgaata gctttttgaa tgtagcaaat ctgggatcat ctgncgataa 300
 accaccgatt tgtatttcat tgattccttc ttaggagatt ttacaaaatt gacttcgggt 360
 aatatttcta aagatctttna agttctgtct attaacaata tgggagcctg ttgngatacc 420
 cttttggnat nagacgggaa tgcttagcac cgttttagaa aanntttctn gttaactttt 480
 ngcttccaaa cacaagac 498

<210> 1068

<211> 422

<212> DNA

<213> Ctenocephalides felis

<400> 1068

taacctctaa tgacgtctta acacgtaaga caaggcaagc agatgatgct ccaaagaac 60
 ccgatttcaa cctagctaaa gaatacaacg actcctaccc ggtgggtttt aacatcattt 120
 tatggttcgg agtagccttt ttcttctcgt tacttgctat ctgtatctcg atctccacaa 180
 tggaccctgg cagggactcc attattttaca gaatgacatc cacacgcac aagaaggaga 240
 attaaagttt gcgaaaggag tgtttttaaat tgtaaataga ttgttttagta ttattacaat 300
 gtaaccgagt tattaatttg tgatcaatat aaattaaaaa ttaaaatata atatctttgt 360
 tgaaaatcga attattgntc tattatattt tttgttttac attcctagta ttaccgaatt 420
 gt 422

<210> 1069

<211> 288

<212> DNA

<213> Ctenocephalides felis

<400> 1069

catagaaata taatggaatt ttacttttaa cattgtttat aaactatact ttacaaatta 60
 attgtaatat ataaatataa ttatattatt tcataaaata tttgttctct gactagtgtgta 120
 gatgttttcg tgctttctaa ataagggaag ttatatagga ctgtatgcct ttctgtgaac 180
 aactctatgt atgtttctaat tttgttagga tttattttta taaaaatgaa tatataaata 240
 tataaccgca ttaaaaaaaaa aannannaaa aaaaanaaan aaaaaaaaa 288

<210> 1070

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1070

aattttacaat cagaatcaat cttacaatta gtgtagttgt ctatgagaga aaacatcggg 60
 cgttgggtcac aaaatgatta acagttatag aatgccatgt gtttaatacg cagttttacaa 120
 tataatgtta ctattgttag ttggcatact gtaccgagtt ttattttttt tatgaaaaag 180
 aagatagagt ggccaaatta ttttgggtcat gtgatatttg ttccattaaa gattatatga 240

gggcatgtgc attggtaggt gcatgattta atatTTTTgt accgttgCG aattgatttg 300
 tgggtggagat actgtattaa agngtttcaa atagttttga aactgctctt gtgtgaaatt 360
 tagtatagtc cccaattcaa tctaagangn cttgggtctt ccctttatgg tgtcagcaact 420
 tggataaact ttattctacc ttatccantt attttagtta nnatgctccg ccccttnggc 480
 cagnatantt tgaaccga 498

<210> 1071

<211> 269

<212> DNA

<213> *Ctenocephalides felis*

<400> 1071

caggattact aatgnccgCG tttccactgt tncagnnatt ccgnaaacca ncnaccncgn 60
 atatnaatat gaagctattg gtnaatggTC aataaatgca caaattattt cacaaatccc 120
 gcatgagacc atnacgaata caagaattgg aagctttccc acagaggtaa taatagcacc 180
 tattatggga aatcaatcgc atatncagct tncaacatta aaagaatgca taaatgcctg 240
 ntctttcatt gngtctttac actcggncg 269

<210> 1072

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 1072

aagatttaaa caatatgtaa aatatttatg tcttttaatt taaaatgaat ttatangttt 60
 ttactataaa ctagttaatg aattatataa atatTTTaaa tattgttaag cactgggttaa 120
 ttttcgtata actgctatgc aaaatactgt tagatttgaa ttaattttac tgaatcaaatt 180
 gaaaaaaagc aaagaaaacc agatacttca agtaaactac acgtaaataa agaattgttg 240
 cataatatga tattattata ctcaaatgt tcttttTgtc gaagtaattg acaagttttt 300
 tgaatactaa acaggatagt aaaataatat gtatataata attatatgca catttcttaa 360
 ataactgatt agttgncaaa atcacacgaa atggtagctn cccaatattt taaaagctac 420
 ctaaagtncT aaatccctct ggtcggagc taagtagcat caaaccatgt ttncTtattt 480
 acggtaaaat taacatta 498

<210> 1073

<211> 498

<212> DNA

<213> *Ctenocephalides felis*

<400> 1073

aatgnttnca gatccagccn ccnaagaagc ggnttgnttg cttaaacCna tnggccaaat 60
 ttgagatacn agctttgagc gantcagagt tttcttgga aatgttaatg gtaaaatgaa 120
 aatatgaaaa atttcgcaat tnggacaaag attttcctaa catagaaata ttttgctgnt 180
 ttatgatagt aaattatttc ataattagna atttaattat attttaatat taattgggtta 240
 ataacatgcn aattaatcga gaattgnttt aatgnttgat attttaacat taattgnggn 300

tgggcagata tttattaatt atatgttaag ttcgcgtntt tgctttttat ttaattaa 360
 ttaagattat tatattcctn atcatgggtt aaaaaaacca tgnnttcatt naagggcnaa 420
 gtacccaag ttttngntta acaagggtt ttaaggnta ctgcagctan gcctcngtat 480
 tacatattcn acatttct 498

<210> 1074

<211> 437

<212> DNA

<213> Ctenocephalides felis

<400> 1074

caagaaacaa gcataagatg gccatggcaa tgctatttta tgaggcagaa ttgccatgtg 60
 aagatttttt tccccgaaca ttatacaaga ttttccactt agattttttt tattacgata 120
 gttattaagt agtcggcatt tctgtttag tagtagtaag tagtagaaaa atatgaaaa 180
 aatatttgca atttattatc aaaaactcta atataagtcc cagatttttt tatctaattt 240
 tgtttattga tcaataatta ttattattat tattgttgtt gttgttgacg atgaaatatg 300
 atttatatac aacaaattta tatttaaaat agatctttat aacttactga ctgnagatta 360
 ttggtaattg gnctgggtgac caattcntgg tncccntggt tccattaaat gaaaaaaaaa 420
 aaaaaaaaaa aaaaaaa 437

<210> 1075

<211> 324

<212> DNA

<213> Ctenocephalides felis

<400> 1075

ttttaaccct ttntaacnt tngaantccc cnngntttcg gnaaggccc acaccttgtg 60
 tangccngct taaacttana ncctttcatt ttaaataagac aagaagtgcc attgggggga 120
 nctattgatt ttgaanaacc accattcnaa anctcttatg gaggaggaga tagttattca 180
 tattctgcac caccncccc ttctntaaa ntgaganaca agtgctcctg cacatccagc 240
 tgattatgaa ccaacggagt atggngaata tgcttatcgt cgtggtatgg attatgaaga 300
 tacaggaagt tccgctggaa gtng 324

<210> 1076

<211> 497

<212> DNA

<213> Ctenocephalides felis

<400> 1076

gaaatatgat aatatgttca aaataaaaat gataaaaata aatgagtgga ttatcaannc 60
 aggatattaa acataataga aatttttttt gaaagttagt gaaatttttt aagaaaagg 120
 taatgacaaa gttgaattaa ttacctgtat gtttgaatat ttgttagcac ttttgcacta 180
 aacaagcttt ttttaacaaa atgattttgt gagttaattt tccgccgaat aattagattt 240
 tgtaaataca aaattactaa aaaatttgct ttttttaaaa ttattatttg aaaacacgaa 300
 taatattgtt ctctggatgt tgttcgattg gttttcgaaa attactaaa tgaaactggt 360

gtgccctttg tacacgtgta acacttgacg agagatggga gatggntggg gngngttttt 420
 atatgtcagg ggggaatact taaattgtgg atcttaaaag gaagtcgtat taattgtttg 480
 tcaaaaagtg aaaaaat 497

<210> 1077
 <211> 354
 <212> DNA
 <213> Ctenocephalides felis

<400> 1077
 ttttaaacc tttttnaacc cttttaagtt ccgcgnaggt ttccgcccga ggncccttna 60
 attggtaaat atttataaac tacnttttta attttgttca aactaatttg gatannggnt 120
 tacgnntaaa gctatatcaa nttggataat aaattattgt aagaatttac tactcattta 180
 cagcataata tataaagcac accataatat aatattattt tatctataat acaccatggc 240
 tgttaaaaaac accaaattta tattctcaaa tactaaccac atacaatcct gattttaaatt 300
 tgtataatat acgtttcaac tcaactaagt ctatcacaag aaattggacg tagt 354

<210> 1078
 <211> 387
 <212> DNA
 <213> Ctenocephalides felis

<400> 1078
 ttgntaaacc cntntnaacc ctcttggaan tccccaannn tttcccngc agccccnaat 60
 aatnntactt cnagttaacc tancacgatt atntntataa tttttttgnt aatnnnang 120
 tctgggnctn gatgtcacct cactgnncat atgaaacaaa natgtgacgc tctttataaa 180
 tttatcacta ccttatctat aatcatatca cctcacataa atttcatacc atggttgtat 240
 ttacaaaatt cagacagtag ttgcagagat gtattcgaaa tttgaatcat taaacaaaaa 300
 tattttgata aaattgatat gtctctcctt aaaaaaaatt gaatttctca tttataatta 360
 tttcttgntc tgggcatatg taatagt 387

<210> 1079
 <211> 467
 <212> DNA
 <213> Ctenocephalides felis

<400> 1079
 cgncaccaat gggttttccc naaatttttn ttccgncggg accnggnggc aaaagtgnaa 60
 ccgttttttc cgnccgagga gaatggnaaa aattttntc atggtttttt gggtnaccac 120
 caatnggcaa taaaaccttt tggttggccc aatnggctng ccctttgtta aaccgggggtg 180
 cgngcatccc ccccccccg cgaagnatgc aaagtggaga atggttaagt agggcttaac 240
 ccaggaaacc atcttgatag actaatnngg ttcaattatc ataagtagtc attatttata 300
 atccacaatg actggcatta atataaaaat tgttaaaatt aaatgttaaa tgttttatgt 360
 angggccaac aaangcatatc ntgtattctg gtattaaatt tantttgagc ttttgatctg 420
 ttttttataa ataacgttgc cgcttgaaaa aaaaaaaaaa aaaaaa 467

<210> 1080

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 1080

```
annccnccnt caccgaangg gtttgcccca aaatTTTTTT tggngcngaa cngctngca 60
aagggggnaa ccgtTTTTTt cgnncnagga gntggtaaaa atTTTTTcca tggTTTTtng 120
gttaccanca aangncaant aaaccnttat ggntngtcca aanggcttgg cncTTtgnta 180
aaccggagtt gcgatgcatn ccncnccccc ccggcggaag aatgcaaaag tngagatgct 240
aagtagggct taaccagga aaccatcttg atagctaatt nggatccaaa tatcataagt 300
gtocatttaa tataataatn cacaatgact gngcaattaa tataaaaaat tgtttaaaaa 360
ttaaagtatg aaaatgtntt ttatgtangn gcncaccaa aatggcatta ctttagtaat 420
ttcgggtttt taaaatTTTT aattttgaag cttttggaat tncntgttct tttataaaaa 480
taaatacgtg                                     489
```

<210> 1081

<211> 386

<212> DNA

<213> Ctenocephalides felis

<400> 1081

```
nacctcnttg gatttgcccc aannggtttt gggccaattn ancctttcnt accnttnnca 60
aattggnncg gtanttnccg acggtTTTTt taaaccaata attaaggggc caccgggntn 120
ncanttntna antnttccag ctentancnc naaataccat atttnttca atcatntatn 180
tntntaatTT aggtttgggt ttningaatt ataccaccaa tngtttctat cggcncattt 240
aatnaaatat cctttcatta tgnccgancaa ggacaagttt tgnattaaaa aaantttntg 300
ttacttaatg gacaatattt agaaatcaca ctttgaagac tccttcctcg ganccttccg 360
gggggcgccg agnaaaacca acaatg                                     386
```

<210> 1082

<211> 436

<212> DNA

<213> Ctenocephalides felis

<400> 1082

```
gaattngnca ggcagcantt ggcttgccgg aaaccctgcc tcnctgganc ttcaaccagg 60
nanggaaan ganggttcct catgggtccc atttttaaca aaaatgtcag ctggccattg 120
ggaaaggttt ccgattgggt naaaaaacca gcaaagccat tagtcaaata aaaagaagtt 180
tgaaaatatc agatttttct gttccgagaa ttttaatactg tttactgaac ctactattgt 240
gaacaatgaa gagtttttta cctgcaaaga ctatatatct ggatagaatt ttaccacctg 300
tcgaatgtca gaagtcttta tatgcattta ccctgacgag ttcagaaaaat aaatctagaa 360
ttttccatat aaaatgtcga agtggcgatg aaagatcgtc ctggatgcta ttattaggaa 420
tatttgttca gcacaa                                     436
```

<210> 1083

<211> 497

<212> DNA

<213> Ctenocephalides felis

<400> 1083

```
atntttngnt nccatngctc aangggcgnta ttggccccnc agccggggcgt ccaaaangct 60
nctngtccg caccgnctta ntogtttggc angattatcc ntgtttaatt ttcgcctttc 120
gtccccaaaa tcttttggga tcttgatcat gtaaaagtgn tttaacggct ttgcttcgta 180
tgcatgcagg tgcattatct acgagaagaa aaaaattggg tgctggggga gagttacaag 240
atcttatgtc gagactatgg gccatataat caatgggtgg gggctggaga ggatctgntt 300
taagcattgc tgaggatctg agaaatcgta aatatncgat ccattcatgg acaggagaag 360
taatgattnc tgagatgcat ggctatggta aaccatccgc attataaaaa gnggttgccn 420
ccgcgtncnc ccatacatt gntgtcaatt attnactggc tctgacaat gctntggcgt 480
tccaagatnn cctcatc 497
```

<210> 1084

<211> 281

<212> DNA

<213> Ctenocephalides felis

<400> 1084

```
aagtgtact gtaattgac cnttttattt taaattacag ntanaaatc cgnnaaaatc 60
ttnacccgat gatatacaca aaacgactta taaaaaatta ttaaagcaaa tattgntttt 120
actcttagac cggcgacaat gtgcatatt gttgtaatgg atttttgata gaaatgtagc 180
tttaaaaaaa aacatcttga ctcggnattt attattatta aatcatcaat ttgtgtgctt 240
tacaactaag ctatatttct gatccaaaat gcaatactcg t 281
```

<210> 1085

<211> 489

<212> DNA

<213> Ctenocephalides felis

<400> 1085

```
tttttttttt tttttttttt cgntttccgc atntccacaa gccaaaacca agcctgngcc 60
agcattaaaa acccaatcct tntcngttn ttccagngct atttcanata ttaactntgt 120
ttntaaccgn ntnaatacct ttccaggatc gcgtatggcc tcatttttgn gtgtnaacct 180
gnggncaaca tcgccaatcc atgttaccaa tcgatcctta cgattagcaa acatttcacc 240
gagtcccaaa cgttntnta acctatggna ctgnatagct aattganggc aanancgcca 300
tgctgttgcn cagaatccaa accattngat ttattggttt catatctgnt ggactaacgc 360
attcttttag ttggtcttga gaaactctaa atcttcaaag ttgggngnga gaacaactaa 420
acgagngccc tgaatcgnaa attntccaaa nattncnct cccggtttta naaganggga 480
actgngaa 489
```

<210> 1086
 <211> 389
 <212> DNA
 <213> Ctenocephalides felis

<400> 1086
 ccnggccagg tccattccag gangtgggaa cctttttaag gaagnctcct nanggggggc 60
 atttncccn ngggggaccg ggaaaaatcg cccattagct tgggtcggnc cctggccnat 120
 atgtaatngn ccaagggggt atcccctctt tgcaatgggt gggagggttg ctgggaaaaa 180
 ggtactttac tcctatcttc tcaagactgg caaagggtatt taaacttctt tagttggaat 240
 ttgggggata ttagattaga aatataatgg aaatgngaatt atagaaaaaa aattaaatat 300
 acaatagtat tttaaattgg ccacatctat ctatgcatnc ataaataaag gtatatacag 360
 cattcaaaaa aaaaaaaaaa aaaaaaaaaa 389

<210> 1087
 <211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 1087
 tttttttttt ttttttttgg taaaaaattt ttcttttatt aaantgnntt accaccana 60
 taatacctct ggcntaaaaat tggaattat tctaacaaaa gtttggggnt atggcatgaa 120
 tgccacttaa cactaccagc aattttgtct cagcataaaa tttcataaat agaggagctc 180
 aaaaagacaa aataaccata atatagtcatt taacattaac aaaaatataa tattatctat 240
 taaaaagnaa agcaaataa atctttgaaa aatattctta cacacactca catatatatg 300
 cctttgcata gactccgaat ggagcgagat caaaataata acatgggcat catcncactc 360
 aaagacaaat agtataataa taatatgcgg gtaaatatca ttcattcatt tttttttttt 420
 attgccggtt atccngggcc caataataaa antnaatttt catattaaat ttaaagncaa 480
 tttggttacc gnngaagga 499

<210> 1088
 <211> 303
 <212> DNA
 <213> Ctenocephalides felis

<400> 1088
 tttttgggca aaaagactaa caattaataa ccaacacata ataaaaataa attgntggga 60
 tagaaaattg attcaatttt ctactcgatt aacaaaattg ncctttatct gattatgngn 120
 tgggntttat tatatattat tattaatatt gatcgatgga ttttaattaca ctgattttgc 180
 atttaagtga gtttatctta ttattggttg gttttggtat ttaattaatt gaccagcgtg 240
 agaagaactt tcttgnagtc tcctgatgta tcgncggaga tcagctctcc aaactctttc 300
 cgt 303

<210> 1089

<211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1089
 acctaattatt ataattattaa aaacaaatca ataaaaataaa tagcaaagta aatttttagtg 60
 ttaacttttat aaataccaat catcattttt atatgatttg tataaaaaact tatattccat 120
 aaaataattt atatatcatg aacatagaaa gtgtttatgt atcatttcat tcttatatca 180
 atctaaaaat tataatatta tgaaatataa attttagttg taaaattgaa atatgtcgag 240
 gttataaatc ataaaaaatt ataataatac tataacctct aaaatagcat tgccaatagt 300
 ttgtttatat aaacttcttg cgatcgaaact tcttttcgtt catttcccga gattaaacat 360
 gaaaagccca cggttttcga atgcattgaa taaaatgatt tgcttaatcg cagcctaata 420
 taatattcat caggctatta tgaaaatatt ggatacaatt tttatataaa accattctnt 480
 agaaccatta gaaaatat 498

<210> 1090
 <211> 499
 <212> DNA
 <213> Ctenocephalides felis

<400> 1090
 ccccccgag ctttcnaatt ggtaatggtc gggactggac gtngcatcga tctttcgntt 60
 tatcttggag actgggactt ttagctgccca attcccgag cagnggttgc tttgtgcagg 120
 nggtcatcat tttcgttgca tttacacat ttcaggggat catttttatt acatagggtta 180
 ctattgcaact ttagacaaga ccagatgtt gcattttcgc attcttttct aatcgaatca 240
 gottcaggta aatcgaccaa acaacctttt tttgtttcag tgccgntaac atagatgtaa 300
 cacaatcctt cacatttttt ttctcccccg catccgttga catgacgggc gtcgaaaac 360
 ttattattgc atgtagcacc gcacaagttt tgcaaagagt attgncatcg cagatatcct 420
 cgtgcgcacc ctcgattact ttaccttttc tagttagcgn agcataatct ccattcatat 480
 gctaacaatc ttgottcga 499

<210> 1091
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1091
 cctggctaen nttaagtgc ttgggattct ataaaanttg gnttttaaaa aagctggatt 60
 tataatacaa agcaggggctt cnttttcgat ttgtcacata tatattaact tttttcaaat 120
 caatttatct atgcatttag tttatccatt ttctaactta caaaatataa ttctaaatag 180
 ttcaataagt aacagaatct aataataaca taaaataata atatataacc tctggacagt 240
 aaacatggta gagattttta aatgacaaaa cacattcttg aaaatgaagt tcaaaacaat 300
 atctagtttt gatcaagagt ttctttgggt atgactaaag ttttcaaaca tcacgtaaga 360
 atggnaataa ttgacttgaa taatgcttcc tatcaatcaa tttttatgta aatcataaaa 420
 ggtaaaatta aacaggantg ctgntataaa attactgnca cttccccaaa atattatttc 480
 atctctaatt accatagata 500

<210> 1092
 <211> 308
 <212> DNA
 <213> Ctenocephalides felis

<400> 1092
 ccccttcagt aatttctttt tattttttaa ttanCGaaaa atcaganaac agttattcca 60
 aagatcatgg gncttgntgn ncttctttaa gcttatttcc taccctaaag tgttaactat 120
 tactacctaa actgcgatga tatttgtgat gaatgatgt gacatgatgt ccgaagacgt 180
 tggctaagat gCGgnataat totgttcctg gtcacatcgc gttccctttc ctggtaaatct 240
 ttacttggtc ccaatcttca gcacggccgt tctaacgtgg agcaagcttc gagccagttt 300
 cttcaaag 308

<210> 1093
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1093
 tatcagtatc acccttacgt gaatactcgc aaaaaatcat tgaagcacga agaacagaag 60
 caccttactt actaccaccg cttttaagcc actacgatag ttcccaaaca agacctttat 120
 ccagcttgca gcatctcatg atcgatcaaa acactttaat cgaaggcttg aaattgggtg 180
 gtgtcgatgg atcttcatta aaacaactag ctactttgc acattgccgc ataactatga 240
 acatgggtca cagacatagt tgggtcgagg ctggcacttc tttaggaagt gcttcggntt 300
 tgagctcttt aaacaacgat gtggatagcg cacaagntca ccaggattat ccaggaaaat 360
 taacacccga agaataattct ttttgtgtca tggaaacgagc agtaaattgga ccaactgngt 420
 ctggacaatt actgnagang gaccatntaa cgctttgcca agcgtttana aatgancatt 480
 tntgaatgtg nncnaac 498

<210> 1094
 <211> 228
 <212> DNA
 <213> Ctenocephalides felis

<400> 1094
 cgtttttnaca gcaaaaaacc aagccttgat tggccgaagt ggtcgggtgg cttctcatgt 60
 ggattcatat aaatcaagct tttgtggttg ctttgtgatg aatgggtgct ttggttgaaa 120
 ttgntcttc atggttcatt taagattcaa cgatcctggt gaattgggnt gaaccaactc 180
 ggctccaaaa tcaggcgacg aagaagagct ttctgaatc ctctccgt 228

<210> 1095
 <211> 308
 <212> DNA

<213> Ctenocephalides felis

<400> 1095

```
cctaattgng gttttangct aaccangaaa aataagggtt aaaaaaggnc naaccttnaa 60
atgggataaa anccattaaa atcantttct ttancacatt ctagtcacac actttgatcc 120
gaaagggttc cccgaatcgg cagaatttat gaattttatt ataaattcac aatgatcgca 180
tcacataaaa ttgnctttta atctgnnttat cttgcaggaa aaatatcgca aacacgtttt 240
ttnttggtt ctaactcaat atttaacaca cgtaaattat cacaccgtta ggcaagctga 300
tggnctgg                                     308
```

<210> 1096

<211> 335

<212> DNA

<213> Ctenocephalides felis

<400> 1096

```
ctttctttta aattgtaaca tctatatcat gaaatcatga tcggctccct ggtttatttc 60
taccgattac tacagtatta tatttataat atgttcaata tagcactgng gtccaatttt 120
attttgacca aagggtttata taaaaatcca ggttttcttg atcatgtaaa atgntgggtc 180
attatcttaa attattatat tcagaatgat atataatcca ttcaactttc taaaacaaac 240
aagaaatctg tgcaacgtct gatatctgng aatatgtatt ggatttaata tatatgttaa 300
gngnttaaaa atatatttct atttcatata cttgn                                     335
```

<210> 1097

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1097

```
ccttagacct ccaaattctt ttttaaggaa aaatcccccg gaaaaatagc ccttnocatat 60
tcgcctgnt tatacttggtg acaagnntaa aggatttaat ttaagcgact tctgtattta 120
tgtaattcac ctactctaaa ttaagactgn aatttatcat tatctgacat agtttttttg 180
ttttacgtat tttttattaa aattcttggtg aagttcaaca agtagaatat tgntttttta 240
attgggttat ttggacctta gaatattcta aaatactcta ttacataga gagagcaaga 300
tgcttaaatt tatacaatat gtcgagtaaa accaaaaaaa acgtaaactt gcatgctttc 360
tagacatgct gctataatca taaaaaacag ttttgccatc ttgaaataag gcagacttat 420
attatataca ttaataatgg ntcgacacnt attgtgntca ttggaatgaa ataatacagg 480
nggaatataa ttttcttntg                                     500
```

<210> 1098

<211> 392

<212> DNA

<213> Ctenocephalides felis

<400> 1098

cacnntnttt ntntaagttt tttccctgta aatngtaa atgantttgg ttngngaaaa 60
tagtggcngg ggtncatggt aacaaaaact atgggacctc ttggataatt taatcactta 120
tttatatttg cccgcgtggt aatatttaag atatgaaatc tatagaagcg atcctttgta 180
tgacaaaagt gacattgtta atcatatata caatgatttg cgacatatgt tatggtgcta 240
tttgccctta aaaatctaca tgtgtagtga atttgttctg cttctacgtg ataaatgctt 300
ggatatagng tttgatcttt ttataaatat catatatatt ggattaaaca atcaaaagaa 360
ataaaaatgt aaaaaaaaaa aaaaaaaaaa aa 392

<210> 1099

<211> 362

<212> DNA

<213> Ctenocephalides felis

<400> 1099

tttttttttt tttttttttt ttttttcant tttctatott ttattattta agccataaat 60
atatatatag tataagnata ggctaactac cttttattat tcccgaaacc atttcaataa 120
tttcaactat tcttagattt tcttttattt ctcagacaaa accacatatg cttgttaatc 180
tcaaaacgaa taattatcat ttttgtttat gactatataa ttatacatat gcgggcctac 240
ttagtattca naaatacttt atacaggag cttatcattt tagataatat cattcaattt 300
tgttatttgn attacttcaa taaaaataac acctaataa ttttttcaat tgatgaaata 360
tg 362

<210> 1100

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1100

caangaatat anggggtttt antggcacca taatggcttt taaacttggg gttggttgga 60
aaaacaaaatt tgggttggag gggataaccg ccanttttag gattcaaat acctccgcca 120
atcacacaaa aacactttta aaattccttc taccagaaaa aaaaatggca aaaagaaaaa 180
cacgttttta accagttaca ggagtgnatc tctcaatcc aatgaaattt tatgcagttc 240
tgttcaaaat tataatctgnt gnaatatatta aaaaagttaa acttttgctt aaccaatgaa 300
aataagatct caatagaaga cttaaattaa atatgatagt gatcatgagc atatgttcat 360
aaatcaactt tctgattgat tttctatgat aaatgcattg nctacactat ttacttacta 420
ctacacgggc cttacaggaa tgnatataaa taaaatgat catatatatta tattcattgn 480
gggaaaccgg atttgga 498

<210> 1101

<211> 319

<212> DNA

<213> Ctenocephalides felis

<400> 1101

ctacntnaaa gggggtggct tttcttaagc agntggcata ncccaaggca gcaccactg 60

caaanggtc ttataaaaaa naggtatttc tttggcaatt taaattcttt ctttcanctg 120
 taagaccctg gataccatt ttttttggct tttcttttga tttttcttta agcaattccc 180
 tctgctttgt caattttcct atcaacaaat ctctcaattt tatccattaa tttaggagtt 240
 tctccagtaa caagcctctt caattttatc tgtcacctta tcagcctttt tagttacttt 300
 atcccagtc atagaaatg 319

<210> 1102
 <211> 283
 <212> DNA
 <213> Ctenocephalides felis

<400> 1102
 ttgggcnttt ggtnggtatt ttaanaacaa gaagcatttt nttgggactt ggacttttca 60
 ctactcataa gaaagcatca aaagaaaact gggncctgggt attttgggtg aggggttggga 120
 ctaaataatca tcgatcnggg gttttactta aaacttttcc ctcatatcct taaaaatctc 180
 ttgatgggtc tccaaaactt gtccgagaat ttcacaaaag taacctccgt tccaaaagaa 240
 ctttttgtca aaacacgtgg ggttaaaagt gcaggtcaca agt 283

<210> 1103
 <211> 287
 <212> DNA
 <213> Ctenocephalides felis

<400> 1103
 tatcaagcaa actgaatttg atctgaggta aaactgaatt caaganataa aagcatcacc 60
 nantatgtat agataaaaaga taaagattgt aaaaagtgtg agaaacactg tttggatggg 120
 gaaacgaaat atagaaaaca caaaagttaa aatataatata tactcagccc caaataatat 180
 aattttaaata tatgggttaag tttgtttagt agctcagtg taatagcatt agccttgcaa 240
 ccagaattgc agattccatt ccttcattaa acctgatatc aagcagt 287

<210> 1104
 <211> 434
 <212> DNA
 <213> Ctenocephalides felis

<400> 1104
 accatatent atttttggan taantggaat gncatttaat ttggctacta atactttctat 60
 ggaaattcat tttttaaaata aggtggntta aataaataat ttcattgnaa agncacatca 120
 aaacttttct ccaaatatag ntctataata tttagttttt agcctgntat cactattaga 180
 ttaaattata aattgnttgn aattggctaa ttgnaaagng nttataaatg aacttttgnt 240
 gncatttgnt atgaagatat atgtattttg aagcatatit tttgtaacat tgtgcaaagt 300
 cttatttggt tgggtgnaat aggaaaataa ttatgattct tattactcat taaactataa 360
 taaatttttag cccatggtaa acattacaat taagtatcta tttagcaaaa aaaaaaaaaa 420
 aaaaaaaaaa aan 434

<210> 1105
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1105
 ntttgagccc ctcgngtct tgaaagcccn tnaanggggc cccgggcggg ggaccaagcc 60
 caaaggntta tttggttctt tcnacnggta atcaaaaatt ggccttttat attttaaaan 120
 tggataantt aagntttant anttggcccc cgganaatcg ggccataaaa aaaaaaaaaat 180
 ggatggatgg tttttaacnc ccnaattatt attataccat ttggtctttg ngggggggang 240
 aatgcncctt gntattatth tggaccccg ccccttcggg ggctatgcca agggntatat 300
 tgggaggtgg ggggnaagaa ttttttcaa anantatatt ttgctttacc ttttaataga 360
 aaatattata tttttggtaa tggtaaatgg ctatattaat ggggtattttg gtctttttga 420
 gccnctatt tatgaaattt atgctgggac caaattgctg gnagnngtaa gtggngcatt 480
 catgcntaa ctncacac 498

<210> 1106
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1106
 ggnntttttg aagcccttnn nnnaaangaa gctcttngnn agctcnaatn ncgttnggcc 60
 gaccggcccc gtncaacagt ggcattggacc ttggccttta acggtcantt ctaaggatgg 120
 gggttnttta ntcttggggg gggatatggc tttangggcc tttaaattctt nctnanganc 180
 ccaaattact aaatcannat ncaagccttn tttggnttgg ccttttangn catccaagcc 240
 agntaatttc gcangggccc cagataataa acgagatcat catgagcttt aaagnccttt 300
 ttaaaancac cggggcataa taaanatatn caaactggat accaacaatt ncacccaag 360
 cttttaagga atcaaggngg acaccattgn acaggccttn antgcacaag tggaggngaa 420
 tgacactgct tncatatcat atctttgttt tcaaagcttg cataattttc tggatacctt 480
 cttctctaag gggggacgca 500

<210> 1107
 <211> 370
 <212> DNA
 <213> Ctenocephalides felis

<400> 1107
 cctaccttta ccttctcaact tacccttacc tacgctttac cnacccttnc cnacccttnn 60
 accccggggc tttttactgg ttactnacta ttggctaggg gntttggngc tnaatcnccn 120
 ncgaagagct nctnnaagaa agaacaggca aattttggnt nacaacctnc attctttgnt 180
 accnatcatt antatggcna ctactctatg gncaccnatc gnttaacaat caggcaatct 240
 gntcttgggt ttgggggngc gggattgaaa cccgaatcgg gnttcgaaaa tgaacannaa 300
 tatttggccn tattaaatgg tggtaaaata tnccaattaa tggattattt catcactttc 360
 gnaannnaaa 370

<210> 1108
 <211> 149
 <212> DNA
 <213> Ctenocephalides felis

<400> 1108
 tttttggtgn tatatcactt tcctttgcag gtgcctntga accgggcgtc ttatttaaatt 60
 catcgctttc ttgattatta tcctcagcgc tttcctgatt ggtatcgctc ttatgcgtca 120
 aagttgccaa gatcggttga ttatttggt 149

<210> 1109
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1109
 atattagtaa taagtggcca tcaaagatat taaaattaat ttgccagtc tgtttatttg 60
 gggangaact tcaaaatcat ctattacaag gattatttca agtgccattg gtagataaaa 120
 cataaagtag atatacctta atgccaggag tatatatata actaatgaaa aatgaactaa 180
 atttgaactg gatttcaaat tttgactgga tctgtaaactt tttgtagttc ctttctatta 240
 aataggatat ttgtattcac cgcattttat gacctgaagg aggtcaaata ttccactgtt 300
 tcttttgcac aaattttatt aagtgatagt aagaatttta tacttagggc taatcaaaaag 360
 agcgggcaca cttatttttt ctaatttcat aattaaaaat tggctatatt tgtcctaagt 420
 tgnaaaggtc ttagttattg naaaattata ttatagcgat agattcattt tcattgtggg 480
 atgacttatt gattgaca 498

<210> 1110
 <211> 400
 <212> DNA
 <213> Ctenocephalides felis

<400> 1110
 tttattctat aatgaaatga ataatgntac tccaaatata atagtatgtc tttcatggna 60
 aatttatatg tatatatatt atatttatat atttgnatat atgcacaatt gtgtatgctt 120
 atatctttac atatgtgcaa atatagtttt atggatgtat atagatgtgt aagaatattt 180
 tatgtaattt ttattaactc gtttaaaatt gagtttatta cttctaaaac cacttgcaat 240
 ttgattgact ttttggatac tgntctaatt aaagtatgat gcatttttaa tatgaaaata 300
 gaaatagtta acagtaaaact aaacaagctt tgttgctagt gtaaaatgga aaaatcattt 360
 atgtttttat agctttttaa catgtttcaa tttgataagg 400

<210> 1111
 <211> 379
 <212> DNA

<213> Ctenocephalides felis

<400> 1111

caaatattgg tgcatacacag gctcatggga tatttataaa acatagaatg nggggaatat 60
atcaatcata taaaatttac atgcttcata ctagacaaac aattaaagat caaacattat 120
ttttatataca tttatatata aaattgaatg atcaaattct ttctttgcaa aaaccacata 180
ttattgaagc ataaatttag aaatcaaata aataaaatag cacaccaaac attatgttat 240
tagtttatgt gtcaaatac atattgttat aaattttgag taatatacaa ttataggcgt 300
gttttttaca tttttcattt cagaggtctt taaaacttat acaatatatt atttactatt 360
attgttaaaa cggtttagt 379

<210> 1112

<211> 486

<212> DNA

<213> Ctenocephalides felis

<400> 1112

tttttaagnc ccottnttga aagccctttg gggnttancc gtgggtccnn gggcgggggt 60
cccccaagg tggnaattggg ggaaancnta ccnccaaat tttttttaac caatttantt 120
aataccttan tgggcctaag aaaaggccga aggtggtaaa ggttcaagg gttggtatta 180
gcttaantaa aaggtaaaac tttttaaaaa nggtgatgga atttatctgg caaaataggt 240
ccaaaattca aaaaattact attattaatg gnntattgga aataatgctt tttattagga 300
attggcattt tcaantctgg tattttaaatt tggnttggtt aaatcaccag caccaaggat 360
cccaaccaca cantttcatc tnaccagaaa gaacnaaaat taattttaat ggttattaaa 420
aattacatta ttaaaataac tttttacnaa taaaggtaac cctacnttga gaatggtgtt 480
ggtttc 486

<210> 1113

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1113

ccgacnggtg gaaattggca ntgganccag ccnaaantgg nngggcccg gcaaaggtan 60
taaaagaant ggggattggg cantttattg acgggggcaa naacttttgg cgaatttttt 120
ttaacacata tttttagaaa tggacatata atagttaggg tggggattcg aaaaactgnc 180
tttancatct tttgaaaata aggtatnttg ggcagncttt cggatctggc tgatatccta 240
caaccgcgc catgtagttt ctgccgctta caagttttcc caaggttttg atgagccata 300
tcatctacac aaaatgggac atcggaattg aagctctgca atngattggt ggaattgggg 360
gttctttgtc acgccacttc aaagtanaca atogtgacaa atgttcant ggtattatac 420
ctnggccgga cccgctaagc caaatttgag attcatnaan tggnggccgt ngagctgctt 480
taaggccaat cgcctatagn 500

<210> 1114

<211> 500

<212> DNA
<213> Ctenocephalides felis

<400> 1114
gctagctaca agttgttgaa atattattaa attttattat tatatttggt ttttttctgn 60
atgggggttta aattacattc catgataatt ttcagtttta tataatctaa taaattcaat 120
ttaactgttg aaatttgatc atattgtgta tatacatagc aatataaaat ataaagttaac 180
acattgtctg tttcattata actgtactgc aaaattaatt attttgattg tttgttactg 240
tattattaaa gttattcaga ttcagtcaaa atttaaagt ttggcctaaa cttattattg 300
aaatattgcc aatagtgtat tattacttag caattatgta taaagatttt atttattaaa 360
gcaatattcg aatgtctgta atatcataaa ttatgtatat aaataaatat atcaatgtga 420
acaataacag agaacataag ctcaaaatca tcatactatg tctggaaaat caaatataaa 480
tngtttttag ngtaaataaa 500

<210> 1115
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 1115
ttttntngtt tttttttttt ttttttttgg ggattagaaa attaatattt catttaaaaa 60
aataatgggg tattacagga ttattgtttc tataaacaaa ctacataata tggcatgatt 120
tttttcaata atcaatttga ttgcgaaatg aatottctgg ctggatgcag attttgtcgt 180
tccatccttc cttgctggat ttgnatactg cttctacaca attttctttt cctctgtaat 240
tatttgggtc accacgaacc catttttcaa aagtcattgg ctttgaattt tcaatatgcc 300
cacaaatttt gatcgatctg ctagattgtt accagctgtc caaaacattt gtttggcacg 360
gtaattgctg ttaacaaatt tctcaaattt tcatattgna atggagntca atggntgcc 420
ccctgcgtcc aagctttttt accaaaagca ttttgggtcaa ccagttcact tangaggncg 480
aaaatgaaaa ctttttccgt 500

<210> 1116
<211> 317
<212> DNA
<213> Ctenocephalides felis

<400> 1116
aggggaaaa tctttttttt gaaaactggg attctgnagt ttgcnccgg ggtggctttg 60
cgacgttttt agttccttga acgacataat cattattcat ttcttgagag tctatcaaac 120
tgattataat tgcttcgttt tcgttcaccg cagttttggc ttgttttatt tccggtttct 180
ttttagtttc aagttctaca tttgtctgac tcattatatt ttccggttaca ataagaggtt 240
cttgcggttt ttgtattaat tttgcattat ctaatctctt agtatottca acaaactcac 300
tttctttttc acgaagt 317

<210> 1117
<211> 307

<212> DNA
<213> Ctenocephalides felis

<400> 1117
taccgtattc aggtcccaaa ccatcattaa aatggtagca ttaatcaaaa atcaaagaat 60
cattattcaa attccaagga agtaaaataa aaaataatct ctttattcac ttattgggag 120
tgagtataaa tctaattttg gattcccgat gattgttgca aagctccatt agtctttatt 180
aatacatttt tattttttta tttatttgca ttgtaattgt tgattcagac accgcacacg 240
accgccgaca tggcgctgta gtcttgctcc tctgccggcc gtaacgtcaa agtaatttgg 300
ttgttgt 307

<210> 1118
<211> 374
<212> DNA
<213> Ctenocephalides felis

<400> 1118
ctgggggaaa ggnotccaac cnagnngccg gttttgcaaa aaaccactct tggctgggtt 60
ggaattctca tctattaaat taagaantct tttgcttcat ttcaattatt ttcaaaatat 120
gattgatctc ttcttcagtt gngngntccc ggccgtctat ttcgcaacca tgcttccatt 180
ctgcagggaa ttctgatca aacttttctt ttattgntgg ctcaaaatat ctattcgctt 240
tgcgtttacc aatgctagga tttcctggag tttcataata cttattgcct aggtgatctt 300
ttccaataaa gtttgcttta atatttgctt ttccaatctt gaatgagtta taaagggttt 360
aaagacttga aggn 374

<210> 1119
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 1119
tttatcaaaa atcctagttt atgagtagtg tgaagccaga aggccgtaag gtcgtgaaag 60
atctgaacgt ccatcaacat cttcaatgga tgaaatcgtc gcctaagtca agaaatgggtg 120
ttggtaaact accatttagg ttcagtcaag ttagtttttg accttaacat atctaacaaa 180
tcaattatac catcaaattg ggcattgagac gctttgctgt tcatctctac catcattgtt 240
gaactctctt cacacaacgc ctatattgtg aacgcttttt tggccataaa ctcatgaaat 300
atcatgggac aaccaacgta ttcactagat ctatccttct gtaaattatt tattgtcatg 360
gatacttaag tatagaatta caagtaatac tattgttaga tacctotttg gatcgataga 420
ttccactaca atgggttgga agaaaaaac gccaaagggc tgaagaatat ccttataaag 480
gcgttttaaaa gatgcttt 498

<210> 1120
<211> 455
<212> DNA
<213> Ctenocephalides felis

<400> 1120

gcgtnacata tctggaatth ttttggtgaa ttatthtttaa tgtaataaat catagtaata 60
tttattttcca angtgcaaath atggaaacta ccatccctat attatatata attgtatata 120
ttcctgaath gttttatttg aatttattth aaacacaaac ttttaattata ttcaaataath 180
gatggatgtg atttcatata tccctaaact ttggatcaga gtttgagaga agcctagcca 240
tagtgatatag aaaattatgt gtaggtgtat aattaagatt gcaggagtca aatatataaa 300
gcattgatac aaattatata ttccaattth ctgtaaaccg tgttctttgg ttgattatgg 360
tttatatcac aatttatgaa tcatgtaaath taattgtaaa ttgaaatgt atctncgatg 420
tnaatgtatt gaaaaaaaaa aaaaaaaaaa aaaaaa 455

<210> 1121

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1121

cttgaagccc tngggagnac nnaagccott cggcgncnccg cagggggcnna cctcccggca 60
ggggctcgtg gggtagttct tggcaaatta attattattc attaatatgg atttatatng 120
atatggaata aaaatcccag caatcacatt ctatcaaaaa taaacttaath tcaattcagt 180
ttggaaagtt ttaatcacaa agtctaaath atcataaata gccattatca actgcatgcc 240
gaacattatc cactaatctt aaacgacctt ctttatgagc aattggacgt actttccata 300
ctgttggttat aggcacagca tcatcgctct ctatcatatc caagtctggg catcatcatt 360
tttcataaga gtgaatggca ctgattctaa gctgaatcct aaaccaaath ttgaatatat 420
ttttaactca tcatgaaatg catttttttg atacatttht tctgggctgc tcccaattct 480
ttaattgagt agcataagcn 500

<210> 1122

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1122

ttggattatt gnaagacaath tgcaattata tttcaacaac tggnttagtt accgaatata 60
atttatagga ttcataaaaa ctaattgngt tcaattatca ttcacaathat tcataaataa 120
gcaaataaath tattcaataa aatatataaa attgatgttt ctgtaacata tatactataa 180
gataataata ggattgntag aaaactthta attaaagtga agtctatttc tttagttctt 240
taaggggctt gcatttagat caatttcaag actattctca ggactagaath tcaattggac 300
attattgatc tctgcacgat gttttccatc agagacagtc gttacgcttc tgtaaaatga 360
ggaccaagcg ggcatttgat tgggtggtagt gncgcattct gaacttccaa attgtggcng 420
ngnatcgcta ctacgaagn atttcggtaa attcctgggg cattatctaa atcttctatt 480
ggttagcat ggtacagtn 500

<210> 1123

<211> 415

<212> DNA
 <213> Ctenocephalides felis

<400> 1123
 tttttcnttt cttcaanaaa natnttttaa anaatatggg ggttttgttt tatggggggc 60
 cttacatatt aacttttgat agcaatataa agtanticna nttatttcgn ggatcctacc 120
 caattccttt attaaactgg natacttctt atactatccc attattttta ttaaataac 180
 acacaacttt aaaaactncc ttntgggttt atacaaactt taaatatcac tcctttttta 240
 ccattaggat cgtaattaat ttntacctaa attatntgac ctggtaaagt tttacataca 300
 tttacctttn nggcatataa atttttttag tttaaataaa tgctccagaa atatttttta 360
 ttctntnta catatcaact taattcctag tttttcaaaa tnaatattac acagt 415

<210> 1124
 <211> 382
 <212> DNA
 <213> Ctenocephalides felis

<400> 1124
 tttttttttt ttttggnttt ttgganggct gggnaaaacc nttatttatg ggngcataga 60
 nagaagggtg tgccaaaatt aaaaaacat tgganattta anttttttc tatattcaca 120
 ttttcattat atttctaaac taatatcccc aaatttcaac taagaaatta aatcctttgc 180
 cagtctgaga agataggagt aaagttacat tttccagcc aactccccat tgacaagagt 240
 ggcatagcct ccttgcccat ttacatattg gccagggcac gaacacagct aattgngcga 300
 ttatttctcg atcccactgg nggaaatgac acctctctag tagctttccg aaaaagtttc 360
 cactcttga ttggcttgac gg 382

<210> 1125
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1125
 ggcgggggct ctggaggacc caaaacnntt ttcctttttt aggggttcat ccttcttggg 60
 ggctggtttt ggcggggga tttttccgcc ttggccggcg ggnttttgcg aattgggaat 120
 cgttgggtga agnctggagt accgaaggga acagcccac cacctcgtct gggtgntggg 180
 aaatggatct tgatcctgga tctttcgtct aaagaattgg ggtctattat ggncttattc 240
 ggtancccat ctacctctac acccaaataa aacaaaatta tttatgggat ttcaaagaat 300
 acaacaagtc gccctggctc ccaaattccc ttaatatata tgcaagcagt gcagtctgtc 360
 tattattttt gccactcaca cttaaaaata taatggctgg cccgtatttt atattatatt 420
 gggtattcca gaaagcactg ttgtattgaa aaagatctgn aatcaacaca tctcatgtan 480
 ggtactttnt ttgaaaaggt 500

<210> 1126
 <211> 301
 <212> DNA

<213> Ctenocephalides felis

<400> 1126

tgtgaaccgg caaacattgt cagtaaagct gcactcatga atttgaggta ttgaccccag 60
gatactccgg caggcattgt aatagttata gttttaaatt tggattgtcg agggcaagtt 120
tttctcaac tatggttttg gcttggcgac gcttgtaaac tttatagaag ttcgtttccc 180
cgacttgcca ctttatcata gagaattcta gcgcagcacc caatacaaag aatattggta 240
aaaaactata gaatccaaat ttacgtcgtc ctggccactt actcaaaaaa gagcgtaatg 300
t 301

<210> 1127

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1127

cgagaaaaaa acttttcttg gccccgattt aacccttggc gcctcanacc cctggagaan 60
ctggtggntc aantctttta aagaaaaaaa attgncaaaa actgggttga ctggcgttga 120
aactggtaaa aacaacgacn aattaaatat aaaaaattgn gagaagaagc atatcgaaga 180
ggaaaatgaa agggacgatg cccattgat atctgtgcaa aggacgtgct ggaagaaagt 240
tataagccta atggacctg atcttctcaa ggatttgact tttcttaaca tagtggtcgg 300
agtcgcatta cctatccgcc agtatcaatt tcagcatgtt atttccattt tttttgcaag 360
aatcaactgg actaaaccga gctgatacag cgatgtgcat gtcagtctng ctggggcggg 420
cattggttct cggttaactt tccacaatta cacaatctg ggatttcttg cagatggcta 480
cctatcggac tgccgtctaa 500

<210> 1128

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1128

ttctcaataa ttaanacttc atggttttat tttttaatat gatgaagact gcagacgact 60
atcacatttt aattcacaat agtgaaaaaa aaatacgact cacaattata tgtatcttta 120
acactagttg atgtaaaaaa aagatcacat aatttatatt tctggaaatg caacttgcac 180
aacataaggc cacaatttca tatgaaattg aaagtaaaaa atacttaaca gttgaaaaca 240
actaaataat gaacatgaac aataggaact atattcgaca acaaaaaata ttctcaacaa 300
ttatttcaaa tttctaaaca gcaaaattac taggcaaatt acaaaaattg gntccattac 360
atattggatt taagtaatta agactaccgc tgcactctgc gatggtttct ttcttgcatg 420
ccataagttt tcttgaggca gcattagcat tgnnttaagg ncttggtaca ctttgcctaa 480
gggggaaggt cttgggcctt 500

<210> 1129

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1129

```
aantaaancn cctttggaaa ataantgaaa actctttggc agccccngca aggtccaatt 60
ncggtgggtg cttaagggct tgggaatcaa aaattggnc caaaagantt tacttcttga 120
accccgaaat gggaaaaaga acaccaaaga acctttcacc tttggaaatg ggcaaaaaga 180
agggattatt tgggncccg gtggtanggt ggtccaaccc cttgacatgg ggaaactggg 240
tgaaacgtga aaatgggtcat gggatttggc ttgatccata tgcctaaaga accatttggg 300
cattttaaga tatcaaagtc cccacgcttt gttgttactt gggcaaaacc aaatcaaccc 360
aaagggaggg tatttcacgg nccgtgtctt cttgcnactt ggacgtgggt gttttcaccg 420
gctttggaga acttcatcaa ttgaaactta ctacatgagc atgantggga caacaccttg 480
gatnggggtg ggnaaacttt                                     500
```

<210> 1130

<211> 121

<212> DNA

<213> Ctenocephalides felis

<400> 1130

```
aacgcaatct aatgcctaag ttctcaagtg gcgcaaaacc acgtacattc ttttttgtaa 60
gancacatgt atgttatatt ataaataaaa gagggaaatc taaccnnnnn aaaatnnnaa 120
a                                                                 121
```

<210> 1131

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1131

```
aattcaccnc tntttaangg gcctaataat tatctccttt tttagagcct ggggataatt 60
tacctcttaa ttttggggcc ccttttagctt taattggctc aaagctcctg ccatgtcaga 120
aaatcttctt ggttaaaaaa atatggaaac tggtaatttt atgtcgattt gnttgggggt 180
tggtatcata tattacacgt naaacagaca aactctgnga tattatgaag gggatatttt 240
ttataatatg cttagataaa tctttattac tccattata aaagtttggg tgttcaacaa 300
aactttcaaa ccagcttgcc gcttttaggt ttacnnttta aaaaaaatat acccctttta 360
ttaatcactg ggggtattta actttaatgg attattaatc tncatataca tttttagact 420
ttgcttcact ttagtagggg tttatcccct tccatcnctn tnttgcgggg gntgaacttt 480
tatcatttnt tccttcgggg                                     500
```

<210> 1132

<211> 129

<212> DNA

<213> Ctenocephalides felis

<400> 1132

aatttggttt ttnggagcct ctttttanag cccatttcca gaacattttt tagtaacctg 60
 gtgggaaaac tgatcgacac cacttntgaa tttggtaaaa aacatttgga aatccctctt 120
 acttccggg 129

<210> 1133
 <211> 398
 <212> DNA
 <213> Ctenocephalides felis

<400> 1133
 taatcttaaa ccttaatat ggtttattac cgaaaatttc tcaaataata taaccattca 60
 acttattaac cgtcacttat taaacttttg ntcataaatt ggaatgtcta cagaacacca 120
 gogtgtttta taatgaatac aaaaacgcgg aacagacaaa aataaatcta aattgcatta 180
 ttatgtttat aatgtatctt agaacatcaa agatataaaa cttttctaaa tattaaattg 240
 aaaaaatatg aatagccatg atataagggt aaatagatgt ccaaaaaaaaa cgtttcattt 300
 aagaaagtca tatgagtaga ttagatttta aatttgtgca cagaatttat gactcatgat 360
 ctttttaatc gctattcata aaataaacgg naaaatgt 398

<210> 1134
 <211> 327
 <212> DNA
 <213> Ctenocephalides felis

<400> 1134
 attgttctct tacaaatcta aaaattagaa ctaatctatg atataaataa aaaataggca 60
 gcatacttat acacaatgta tctaatacaa tatgtattac ttacagattg ttgtcatata 120
 aacttcaata cccagaattt tttttgcagt tgttcaaaat tacaaattgt ctgcacaatc 180
 catagatcgg agtggtttcg gaatggtctt tttccactt agattccttt acgtaaacac 240
 aacacaaagc gtgtggagca aaagttttcg ataatactgc attatattga atatatctgn 300
 taatgttcca aatcatgtag gttgcag 327

<210> 1135
 <211> 357
 <212> DNA
 <213> Ctenocephalides felis

<400> 1135
 cacacagtca gtgatagagt tacgcgttcg ttccgcactt aacottacga atacttagat 60
 tttctccaag aaaatctttt atctaagaag aaaccaaatt caagttgatg cattattctc 120
 cggaattgtt agagaatctg aacaacggtt cgttgttctt cagctacgaa tacaaccggc 180
 actgtaaagg gtctttgaag aaactggctc gaaagctgct ccacgttagg acggcogttc 240
 tgaagattgg gaacaagtna agattaccag gaaaggggaa cgatgatgac cangaacaga 300
 attttaccga tnttaccac gnnttnngac atatgtnnac atattataca aatatat 357

<210> 1136
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1136
 tttttttttt ttttttttgn tttggaatac ataatttggt ttacatttat tcttttataa 60
 aattacataa aatatcttta ggaataacaa aaagggattt tcatatgcac atgtgcatat 120
 aaataccatg catatatgta tatgcatggt aacagaaaaa ttggnaatta gttaattagt 180
 tctactgggac attatttttt cccacgttt gaaagaggca cttcatttcc taaaaccgga 240
 aagngatttt caaatgagtg ggcaacacat gatgcttta atcggcacgc aaaagtcttg 300
 atgacatgtg gcacacatct caatcttgca tttgattttt cactttggat aaaaatatag 360
 tataattcct gntgcttgca gatatcgggc agtaagcaag ccactctggg aagatttcat 420
 caaaatcttg cccaagcttt atgccatgac ataaatgatg cctgataaaa tccttcctaa 480
 tattggtcct cagaagctgc 500

<210> 1137
 <211> 378
 <212> DNA
 <213> Ctenocephalides felis

<400> 1137
 ttgaaattta taaatatata ttttcataat ctatcatttt ataattctta aaattattga 60
 gctacattat caaataattt ctctgcaggt aacttccaat gttcaaacac ataaggtaaa 120
 cgatcttttt gttcagtgct ccaatgatgt attctgcatt taacatctac tttttcttta 180
 ttattaattg ttacaacaac attgaactct ttattttgca agttcatatc cggacctttg 240
 ataggctgtt cgggtatttt tattgcttct aatgggcact caattccacc tttaacgcaga 300
 gctatttgaa tgtgccatgg ctgcataacc caaggctctt ctttgttcat tactacggca 360
 aatacatggt tggagagt 378

<210> 1138
 <211> 264
 <212> DNA
 <213> Ctenocephalides felis

<400> 1138
 acgtggtaga aattctagaa gttgccaatt tcttctgtcg actagttcga atgggtgtgtt 60
 ggttacccat tctgtatcat actgggttcag aagataacaa cgcacagtca tgcctcccaa 120
 aaagatcaat ccaatggctc cgatggagaa aaatcttctt ttacatttgc agctgggttc 180
 agtatacaaa tattgacctt ctatatcttc tgattttttt aaaagtgggt gttcttggtt 240
 gccttctgat ggtggttggt ttgt 264

<210> 1139
 <211> 498
 <212> DNA

<213> Ctenocephalides felis

<400> 1139

gtttttgtta ttttcggaaa cttggattaa taatgaagaa ogaattaata ttcagaacta 60
ttactgcgtt actcaatata aacgatcgga ctcaagagca ggtgggtgtag ctgtctaata 120
tctattattc atgttcagat actcttcata atgcgactcc tatgcagttt cttgcgccaa 180
cgatattact ggatatttct aatgaaatta cacaagtagg tgatattaca cacacagaat 240
caaacattga ttatagtcgt cctttacatt tctccaata aaaacatata aaatattatt 300
aaatttcttc atcagcagtt acttcatttt tcttatgagg gtgcaaaact tttaaacact 360
aatcacaacg agataccatt aattcttgct ggagatttca atgtcaattt tcgttcagaa 420
gaatctcaac cattaattga ttttttaaata aataaattta atttaacaat gaataattct 480
ccatttgaat caaccaca 498

<210> 1140

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1140

taccgtcggg gtttattgaa ttttttagtta tttaatcaga agtaatttaa gaaatatata 60
caaaaattga attttatcag aaaacatata ccatttcata acaagtttta tcgcgttcga 120
caattttcat ataataaatt aataaatatt ttcaaaatga catcagaaat ttttctctta 180
tcacctgtcg atcgcaatta aaaaaacact gttagccata atattgcaac agaggaattt 240
atccagcaca tgcttattta taaagatcag cttatcaata acatgatata tgaaaatata 300
cttacctaaa tgataatcta ttgtttaaat gcatttttat atttcaaaat tcttatttaa 360
tattttcgct ttcgtatagc agataaaatc ttctggaaat ttgcaaaatg gaatcgatca 420
aaaaatcggt gntttacagg gaatgcacag caattaatgc cattattaat ggaaatgatc 480
ctatttaagc aggaacac 498

<210> 1141

<211> 289

<212> DNA

<213> Ctenocephalides felis

<400> 1141

catancaatt atgaaatgga ttcatgatat atatatatat ttatcttcaa aacatagaca 60
ttcaaaacta tttgtttctca ttaataagat tacattcagt caagaaaaac atgccaccga 120
gttttagctt tttcaacaaa atataatttt tttttattgt taaaaaaca ctgccatata 180
aatacaaatt caaacacatt cattacaaca ttatgagaat aagtttagga ttttaaccaga 240
aataaattaa taatggcgaa caaatagtaa taaataactt aaaatcagt 289

<210> 1142

<211> 484

<212> DNA

<213> Ctenocephalides felis

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2
--	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	---

<210> 1143

<212> DNA

<213> Ctenocephalides felis

aaaatattcg	aaacattttac	agttacttta	gaataaaattt	acttatgagt	aaacatagtt	60
caaaatattt	aatgtttatt	ataattataa	aataattgat	ttttagccaa	tcgtcgaaat	120
aaaaaaagac	aaataaataa	aaatatnctt	tataaaatac	gttttgacac	ggattgtgtg	180
tcatctatca	gcaatttttg	ttaaatagta	tctaaaataa	taattacaaa	gtttaaaaaa	240
taaatataaa	attttatatt	taaaataagg	natacatacc	acaactagaaa	aaaacatttt	300
ttaacttccc	gtaagggnagt	tatgtnatga	accgaaaatc	gaaaatgaaa	ttttttgcat	360
ttctcgacgt	cttgaagggt	tctggacatt	ttggcatacc	tcagaaaaaa	tgatgtgtgtg	420
tgtgtgtgtg	tgttttgtat	gccgcatttt	tagtcaacgt	tttcggggcgc	acagatcaac	480
cgatttgaat	gggttaaa					498

<211> 500

<212> DNA

<213> Ctenocephalides felis

ttttntttnnn	ttttnttttn	nttttgnann	nttaaccacg	ccatntcggc	aagccatggn	60
ntacagcaaa	tgagtaaaca	cacagncaag	gcatggaaac	atattatgtn	gctgngtgtn	120
gcatctcgaa	taaacccaac	gattggaccc	aaagccaatg	tcattattcc	ttgcaagaac	180
atgaacagcc	cgtatgccga	aggaaatctc	tcctgtgaaa	aatattcggc	aaatactaaa	240
ggtaaaggca	catgaatcca	tgtgcggaag	aatcccaaaa	aaacttgatat	tataagcatc	300
attgtaaagt	cagtcacgta	caagaacact	atacgtgcga	aaactgagaa	taaagctccc	360
gctaaaaata	ctgttctact	gctgacttta	acacaagcag	tcattcctgc	caaaaacatc	420
cttgatgaca	aatctgcagc	tgctgcagca	gacacacaaa	ttgctgtatc	agttttgcc	480
gcctaattgca	aacagataca					500

428

<211> 280
 <212> DNA
 <213> Ctenocephalides felis

<400> 1145
 gtttaagccn ttaggtttta gncctngtt agcgcggtcg cgggccgggg tacatttaat 60
 gntacacctt gagggaatga cgcttgcaac agccttagaa gcaccggat atttttaga 120
 aggtaaatca caaatctgaa cattttcttc atagacgcaa agctgggtatt cggtttcaat 180
 agcgaactc tttggtttta atttttgaat cttaaagtat tgcccaggcg tagcccaccc 240
 atcattaata tctaattcta atgattttgc aatacgatgt 280

<210> 1146
 <211> 287
 <212> DNA
 <213> Ctenocephalides felis

<400> 1146
 tttcactggc ctaccaaatt tactacgcca cctagtggcg gccaatgtc cttcatattc 60
 ctctttgatg gtttttgact caaattcttg caaagcacac atcaaagntt ttctttatc 120
 ggatgttagt ctcaagggga gctcgattgc ttgttcctta cttatttttc catttgaagg 180
 gnatgatgag ngattaacaa gactgggagg tattcgntc tcacantttg gtgntataat 240
 agcagcatgt aaaaatttgg aacgactgtg ctgggaaaga acacaat 287

<210> 1147
 <211> 484
 <212> DNA
 <213> Ctenocephalides felis

<400> 1147
 ttgctagtgt accatccatc agcattattg agattgtttt gaaaaaaaaa aaaaagtcaa 60
 tttagggttaa tttataattt ttgtcttta acaaattggt tatttatatt gtagtatttg 120
 ttttaaatat aacttgtgcc agattcttct tttctaaaac gaattgatat aattttatag 180
 atatatattag aaatattgnt tttgggcatg gagggtaaaa gtaattgcgt ttgaatggaa 240
 aaaatgggtc tttgtatata tggaacttga tttttatggt ttgtgaccct aaaaagaaat 300
 cttcctgaga gaatcaattt cttctttgct ccacaaatgt aacacacatc acacagggtc 360
 tgtacaaaca tcgggaaata tatgactata tatatttcta tcattttcat actttttata 420
 ctaaactttt atatttggnn aagaatgnat gatttattat tatataaatg ctaaaatatt 480
 tatg 484

<210> 1148
 <211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1148

095496 T02T = 966T6560

atattttgta tagtttcttt tgttgaatac ttcatacaata tattaatata atttaggttt 60
cctctcgcaa gttcctgtgt cgcagctttg agtagcttgg ttaaatactg ttccaatcgg 120
acattgatca ggaactggct ctccttttagg acgtaaacac gtgaagaact tccggcatgt 180
tgcgctgttc ttgaaagcaa attttccacg tgctcggcat tgcccgcacac aggtttcgt 240
ccttggggaa aactcggcgg gttcttcgca ttgcaatacg gttcctcttc cgccataca 300
tacgacgtac aatgatttat caccaatgta cggaagcacc ttaggctgtg caggacatgt 360
aactgtatag cattttgtgc ccagagccat aggtccgcaa ttatgacgta acggatcata 420
tgcaaaattt gcggggcaat aatattgggt tcctatacta ttttcgtcac aataataata 480
gctttgacaa tcatttat 498

<210> 1149

<211> 306

<212> DNA

<213> Ctenocephalides felis

<400> 1149

taaaattgtt gagcataaaa tacttccaaa gtctactctc caatgtaatc tacaggatca 60
acattcattt ataaagattt aatgtttcga gtgcttcgta taatagaaca cctataaaaa 120
cttttttttg atattcgtgt tgatactata taaattttta aaatcttatt ttattaattc 180
actcatactt ttagcacaga tttaatactg caaaaatttc aatacaaatt tattatatac 240
agatacaaca atccagcttg tcaactactc cactctaaat aactacatga ctatcaacct 300
ctctgt 306

<210> 1150

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1150

ctcaattaaa acaaattttg tgctcataac taaagatttt tctggagttg cggncatta 60
gctcatagaa ataaattatt gacagcaatt ttgttcaatt atatgtcaaa aaaattatgt 120
ttctatctaa tcattattga atgttaatgt aaatggntta attttttaat gcatgaatat 180
ttccaataaa acatattttt gaatgtgaag atagnttatg gcatataaat tggaccatta 240
ttinctatggn caatatttga aaatattaaa ataattttta tgcttattat nctgnaaact 300
attaagaacn ttinctgggc cngaatatnc ttttnaaaaa catttggtta ttcnaaatta 360
ttaagaatna aaacgtgttg ntttcagacn tgaaagggtac natttctaac ntctggnttg 420
gcacngaacn ataatttgnt taaggccac atttaaaatc ntnacaaaac ntctcacn 480
nantttttta ttattcatca 500

<210> 1151

<211> 349

<212> DNA

<213> Ctenocephalides felis

<400> 1151

attattgact gttttatatt tcgtttgatt ttgtgctgaa atgatgcaaa aagaataatt 180
 ttgagcaaaa cctacctctt ttttaatttg aaactataga ggnattatt aatgnttcca 240
 attccataga atgtatattt gtagattagt aaaggtaatt aatgccnaaa aaaaaaaaaa 300
 aaaaaaaaaa aaaa 314

<210> 1155
 <211> 352
 <212> DNA
 <213> Ctenocephalides felis

<400> 1155
 atggctacat taaaaatcaa acgattcaat gttttttatg aattgagaaa acaattttata 60
 taaaaacgat taactttcat tcagaagttt ttgttaatat aacaatagta tctgaaaaat 120
 attaaaaaca tctgtcaaaa atatgcaaag taatttcatt caattataaa aagatttttc 180
 aataatttac aaaaattaaa aacatttttg aaaagatata aatatcagca catgttaaatt 240
 agtaagagac aagaaacatg acctttaaaa tttaatccgt gttgcatata caacaatgta 300
 ttttaaactg tgattttggc aaccatcact tcattttattg catacgtaat gt 352

<210> 1156
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1156
 ctantnagcc cttactnac ncttgannn ccgcggnctg ccggcggtcc tggncaaatt 60
 ggagttattc gatgtcttat gtagagnatt ttgaagnggg taaataaata atacatcggc 120
 tcgcgagnnt gttaaagttt gattaaataa cttagtgatc attttcaagt tattgaatta 180
 caacactttg aaagcattaa gtgcctttgt tagattttta caatatcaac ataataaata 240
 attatattaa aaaatttatt ttaattcact catttttaac aaaataaatt tcatatacaa 300
 tattttaata atcctgacaa aattgtatth aattttactg atatttttaa taataaatgt 360
 tttagttaga atattaagga aacgtataca ttaaaataaa atgatatgtt cttcaccttt 420
 atcttttcaa taatacgaaa ttcgaattag tatggcttcc gcttaaatta aatatgtttg 480
 ctaaactgcc aatcaagaaa 500

<210> 1157
 <211> 92
 <212> DNA
 <213> Ctenocephalides felis

<400> 1157
 caaacgaatt acaacaagtg gaaaccactg taataacaaa cgaaaagtgc tacgaattgn 60
 ctcaattcgn tgaaccaact tcgcaaatat gt 92

<210> 1158

ggccatgggc cgttttotcc agctctttgg cagtctactg cgagattctt gcaaattctcg 120
 gaatccaagc ttgaagtgcg cgtaccagtt acgacatcga atgcattttt accaacgcat 180
 tcttttaata ttccatcagc tcctttttca gt 212

<210> 1162

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1162

ttaaaacaaa gaaaattagt tcaaataatt ttcaattctt agtttgtgtg tgcataatatt 60
 gattattttag aaatctttat aaacaatagg acacttacat ttcaaaaata ggtggtaccg 120
 aataaattat gatctctttc actacatata ttacaatcaa catttattaa ataagtngtg 180
 aatttatatta ttgngcaaat aataatatgc tntncatgtt tgnaatcaat ttattaattt 240
 aattgnataa tttngtgggt taccncacat tttagctact ggtgagctag gcataatgng 300
 aaanggatat cttaattttt ttngnatcaa agctttcatt ttattaaaaa aggaanttat 360
 taataaatat gngccanttt tcantattgg gatgctantt atgccnatga tatggtggna 420
 tcatnatatt tgaataatcg attttttgat cctnttgngc gatatttacc aacnntaatg 480
 ttttaagctn taaagaat 498

<210> 1163

<211> 360

<212> DNA

<213> Ctenocephalides felis

<400> 1163

tccnaagccc ttgtnggctn catttngntt aacgggggcn ncggcggggg actaaaattg 60
 ntgagcataa aatacttcca aaggctactc tncnatggaa tctacaggat caacattcat 120
 ttataaagat ttaatgggtc gagggnttng tatnatanaa cncctatnaa aacttttttt 180
 tgntantcgg ggtgntacta tataaanttt taaaaactta ttttattaat tcaactacat 240
 ttttagcacc anaatttaat actgcgaaaa tttcaatata natttatatt atacagatac 300
 ancaatccag cttgnggcta ctctcactct naataactac atgantatta ancncctctg 360

<210> 1164

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1164

cgagtatgaa tatgattcaa agggaatcaa aaataacaaa gataaagttt cattaaaaga 60
 agctatttta ctcatggaga aaatgcaaaa taaaatggat gattccagca ctgtgctcag 120
 cgatctggac gatgatcttt tggaagctga aattttgcag tctgcaaatg caggaagtca 180
 tgaaagcatt ttcaaaggtc gctatcacta cgtgtggcct atgttgcttc tccttttaat 240
 tgttcttacc gttttgtttg tcgttggaat aatagttcac atttgcaccg ataaccgaca 300
 acgttcactc aaatatcaga atataataac tgctgtgaat cacaagattg taaagaagaa 360

ggattgtgga ttagtatatc aacctotatc agaagaaatc agatgtcccc aacgccaata 420
 gtgacacgct atcaagctat ttgagcagcc gtttcatcat gaaaaaatc ccccgacaag 480
 tgtactttta acgttaattc 500

<210> 1165
 <211> 495
 <212> DNA
 <213> Ctenocephalides felis

<400> 1165
 tttttttttn ctnttttttn gatgaattaa cattagtcaa tttttttatt nnaaaaaata 60
 taatatgaga tttccgatta caaattatnt ttgttttttc tttgatgttg atggtttatt 120
 ggcttttaaat ttagatatta ttgnagtat caaaacaaga ctgaatccta tagttgtaaa 180
 tgcgataaca ccaaataatta cnatagatca acgatggngt attcatttat gagtgnggta 240
 aatttatcaa cagcatcacg aatcatttcc actaccaggg aaactagatc atcaaattgg 300
 gcttttggtg gtggcacagg ttcagcttta gtatttttgt caagcccnnt tttttttttt 360
 tttttttttt ttgcttgngg gggtattaga ntatggattt gtcactata aaacnaatag 420
 ttaanaaaaa tttttaagg tcaatttcca cgangcaatt ttncacaaca tcattaattt 480
 ttccaatctg gattc 495

<210> 1166
 <211> 419
 <212> DNA
 <213> Ctenocephalides felis

<400> 1166
 cagcaccatt agcacaaaaca gacaaccggc atgagttatc caatcgcttg cgattctatg 60
 ctctgggtaaa aaatataagt cgagaagttg ccatatgctt ctccaaacat tgacagttcc 120
 aatgaaacta aaaaatagaa ataagtcagc aactaaaact ctccaaaatc cttccaaaacg 180
 agcacatgtn catcgcatga taggctgaag actgaatgtg agtattacaa tcccgtagcc 240
 aagtgcagt gaagccagag cactaagcga tggatcatct ggaaatataa tattgtccaa 300
 tatcacccaa gctccctnnc acacgacaac caccaaggat ccaacgatga atacggaaaa 360
 taagcaatcg attaccgtaa agccatttct tntgatgctc gattctttaa aatatgtag 419

<210> 1167
 <211> 293
 <212> DNA
 <213> Ctenocephalides felis

<400> 1167
 tagcccttca atcattatnt ttatttaata attgggcaga tttgntagaa caaaaataat 60
 gattgttagg gctataaaat ctgcacaatt attaaataaa aaaatattgg gaaaattttc 120
 tatatcatgg gcaatttatt acagaagagc gaagttaagc atgagggntt tatcaattat 180
 tgggtctataa attataatag aaatgaaaaa aattgttaga tataaagaaa tgtttactgt 240
 aagatttttag caagtgttga gttgaaaatg aagaatatgc ttacaaaatt ggt 293

<210> 1168
 <211> 109
 <212> DNA
 <213> Ctenocephalides felis

<400> 1168
 caatcaagac ctttgaaaag atttttgggg cannttaggt tggcccaaatt ccaagaggaa 60
 attcaacggt ggccaagcgc ctttncctac atcagcgggc aaatctggt 109

<210> 1169
 <211> 438
 <212> DNA
 <213> Ctenocephalides felis

<400> 1169
 tgagaataaa gctcccgcta aaaataactgt tctactgctg actttaacac aagcagtcatt 60
 tcctgcaaaa aacatccttg atgacaaatc tgcagcagct gcggcagata cacaaattgc 120
 tgtatcagtc tttgaccagc ctaatgcaaa cagatacatt gtttgaatag cagaaaaatg 180
 ctatgtcgga gtatagtgc aatgtcactc caataaccat atttacataa atccagtctt 240
 ttaacaaaagt caaatccaaa aagtcaacga taacttgcaa ttttccctg gatattcttct 300
 ctaccggtgc agtagtgcta tcaactgaca tgactgctcc agtccaatta cctaaactag 360
 aaatggaaga tccacgtctt ctcatcttat gttcttcata ttgaagcatc ttaactggag 420
 ttacgccttc tatatncc 438

<210> 1170
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1170
 ttttttataa atngttttaa aattacatat tattgaacaa aaaataaact gtagtaaatt 60
 aaaaacaaga tccaaatttc caaagcaatt tgtaaatcaa taactgagaa acgactcgtc 120
 gattattgac aaaatttaat cagcacgatt ttcaaataga aaactttttt aatgggtttt 180
 gaattttcaa aatcgattca caaatgtaag ctataacgtg aacaaaaaat ttgagatttt 240
 tttgaaaatt ctaaagaaac ggctcggccg atcatgaggc aaaactaacc agcacgagtg 300
 cttatcgaat ttgcgaattt caacgacttt tcagatagga ttttgcatta ttaagaaaac 360
 gtgcactaaa gatgaaattt agactcacgt aaaaaagtgc tgctcatttt tttggaaatt 420
 tttatatttt tctgttgatt agaaacagct tggccgtcgc gcacaaaact aaaagacgct 480
 agtaattatc tagtacatca 500

<210> 1171
 <211> 220
 <212> DNA

<213> Ctenocephalides felis

<400> 1171

tctcaaggtc tggtagagacg ttccacaaaa attctagaaa tcagaacaat gcttccaaaa 60
tacaaatata cgtcctacaa taccaccatt caacacctcc aacaatttta ctatatcatt 120
tactcctcaa aattcgtcct agtaggctta taaacaccga catccttgct ctccgaatgg 180
tagccaagg aggccaattc gtccataacc tcaacattgt 220

<210> 1172

<211> 284

<212> DNA

<213> Ctenocephalides felis

<400> 1172

aataatttta actatgtctt attatatccc tttgtgcata taggggntaa actgactaac 60
aagtatcact tttttttata aatatccaag tatcatacga cacacgttta taacgatttc 120
ataaattaaa tatcactggt tgtttttgta caaaggcact ttttgtcttc aagcacacac 180
cgaggcttta aactaccaat gtaatatgtg actagaataa ttttaattgt ttcagcgtcc 240
actgaaggct ttaagcaact tcgtgccaaa cagactctct gtcg 284

<210> 1173

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1173

ctaagatgta tatattctac acatatgtgc atataatatt gtcaagtaat gtcattgtgat 60
atatctccaa aaggogtaaa cgctggaaga aaactgagta aactagaaaa ccattgatgt 120
gtggaagatc tagtccaaga agctttttta tggataaaaa tggaaacaaa aatgtaaaaa 180
tatagttgca attataataa tcatatcatt agatatgtag cgaatatgag atagattctt 240
tttaaaactt ttataaatat atttatatat aaaaattctc aatataaata gtatactcaa 300
atatatttat atgatttaaa aatattgaag tttttataac caatattttt cagtataaatt 360
ttcagtaaat gatgattttt ttataaaaag tgcgtattaa ttaaaataat ataaaaaaaa 420
aagattttta ataataataa tactattaaa tatatgatca tttttatgaa gtatttaattt 480
tcttataaat tattagataa 500

<210> 1174

<211> 353

<212> DNA

<213> Ctenocephalides felis

<400> 1174

cttcattttt tcaatatgca nttcgatttt aatctaaggg aaaaaatntn cnggtgtngg 60
ttaanattta atnngaata aaattctgtg tattatatatt agtttttttt aaattatcat 120
ttaatnttaa ttattgntaa aaatatnatn cgattaatta aaataatatt aaacataaat 180

ttcattgntt tttttangaa actaaattgg gaaccttttt atatcttatt atcnacgcta 240
 aaaaaaatac atttttttta gtattttacc gtttcatatt atattaanaa aaacttttag 300
 ttaatactaa ttattataaa aataactaaa agttnnacaa aaatactgga agt 353

<210> 1175

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1175

tttgtnanna aagatacagg ctgtttgttt atattgcata ggtatacaag tgaagcaata 60
 ttttgaacat tgaaaaaatc acaaattggg tatataattt acagnaaaaa tacaatatag 120
 ttcagaattc ataaattaat atttntaca agaaacaatt actttaggng cttaataata 180
 agtttcttaa tgaggcatga agatataaaa ttaaataaaa atgatcatag ngnaaaatac 240
 aaattaaata gttcacacaa ataaatagtt agcaaagtca tctacgctat atataccctt 300
 aatactcgta tattcttcta gtagtaattt tttcactaat ttcacagnct tcaagattat 360
 tccaaaagat ttacgacgaa ccatctgatg tgagcgaatt tgatgtagag ctcaagtcgat 420
 ctccgtattt attaagaagg ctaatatgac accattcgtn cagccaaaac caagctggcc 480
 tcatattntc cgcatttctg 500

<210> 1176

<211> 299

<212> DNA

<213> Ctenocephalides felis

<400> 1176

ttggcaatga aatacagttg ggaaaggact aaatcggctt cggtgctaag gcttaagctc 60
 tanaaattct ttcccatttt gggatttttc ccggggacaa aggcagaaaa acttggtaaa 120
 ttcaccgggg aatttttaaat ggtagaagca aaacatccaa ctottggaac ccggagatac 180
 caccacctcc agaaaatac tctgcaggta acgtcattgt tccacaaacg gaaactgatt 240
 taaatattca aaaatcataa aagcggtcac agntttatta atgagttgga aataattgt 299

<210> 1177

<211> 230

<212> DNA

<213> Ctenocephalides felis

<400> 1177

aggtagcgt ttggtgaatc ctgaagcatn ctgttcatag caacagctga ttgggatatc 60
 agcctgcgct gtccggactg gaccatgggtg ctcttgacga gcaatcctac acatctcatn 120
 gccataacga aatacgaaaa ttattagtga accttcgaaa aatcaggaac cccggttgtaa 180
 atgatagatg gacacacaca acgcgcgttt gaaatgaccg acactgtngt 230

<210> 1178

<211> 318
 <212> DNA
 <213> Ctenocephalides felis

<400> 1178
 ggcaacanc t tgccttggg caccggctgc tgctttggca gcataactcc tgctgttcga 60
 taaaatcgat gcgattttac ccgattctgt tttgctcagg gttcgcaaag tggaattgat 120
 tacggagtgc atcttgtaat aaaatgtata gccagttgag ttgaattaaa ttgatctcac 180
 ctgtaagcta ctgaacgaag aatattaaat cctttatgag cactgatagt attttttgga 240
 gtgtgcttac gtaacttctg cacttttcag tttcattgct tagnaacattt tcttgaggag 300
 cgggtaattc ggcattgt 318

<210> 1179
 <211> 329
 <212> DNA
 <213> Ctenocephalides felis

<400> 1179
 tgtagccacc gcgatacgaa tcggaacgcc catgcttata atccatgttt ctggatagct 60
 gactcacaaa ctaacttcaa tggaacccca actcacacgt caaggatttt gattaaatac 120
 acgtgcaaat ttgaataatc aaaattaaac ttgtcttata ataaatgttc cacacatttg 180
 ncctnctgca tntgnaggta tgatgatatt gaactggcac gactgcactt aaaatagttg 240
 cattataata ttaattcgtt gcacttgaaa atttaatgct gaaatgncca aatagtccac 300
 acagcctaca agcacgtaac acacgtnaa 329

<210> 1180
 <211> 190
 <212> DNA
 <213> Ctenocephalides felis

<400> 1180
 ttatattana gggncgtggt gaggtaactg ncggaaaaga aaatttantic tttgagagtg 60
 gtccatttac ttatttttgt cttcaagcga ttacacaaaa cattggagt ggcgattctg 120
 ngaaaggatc tatgcaatcg ttaaataatag atggatatatt aaaaaacagt tttataccag 180
 actatacagt 190

<210> 1181
 <211> 305
 <212> DNA
 <213> Ctenocephalides felis

<400> 1181
 cgttacttcc aaccattttt gcaataattt taactatgtc ttatttatatc cctttgtgca 60
 tatagggttt aaactgacta acaagtatca ctttttttta taaatatcca agtatcatac 120
 gacacacgtt tataacgatt tcataaatta aatatcactg nttgtttttg tacaaaggca 180

ctttttgtct tcaagcacac acgaggcttt aaactaccaa tgtaatattt gactagaata 240
 attttaattg tttcagcgtc cactgaaggc ttttaagcaac ttcgtgccaa acagactctt 300
 tgtcg 305

<210> 1182
 <211> 58
 <212> DNA
 <213> Ctenocephalides felis

<400> 1182
 tacgatttag ccgaggcaaa taaaaattct attgnaaacc canagtggaa gcaaattgt 58

<210> 1183
 <211> 383
 <212> DNA
 <213> Ctenocephalides felis

<400> 1183
 agngggctaa tataggatct ttataattac cgnagggcca aattagnnga caaaatnnaa 60
 ctgagatttg taataaagat tgcaaacatt ttcaaaaaaa aaaaaaaat tgaaaatttt 120
 acgatttttt tcggaggagg gtaattttca atatacgggt tcacagaggg gaaaggggat 180
 ttcaaaaatt ttcaaaaaaa tcgattacgt gattaagtga cgtcccgagc acaaaactta 240
 tgggtccaaa tatattttaa atnttaaaag tccaaatgtc caaaatctgt attacaaatc 300
 tgtcagtctt tttgcaatcc tttatcaaatt attattttcc atcaaagcac acactttttt 360
 atacatgcat tttccaaata cgt 383

<210> 1184
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1184
 tttttttttt tttttttttt tcacataata tacatttatt ttcaatttaa ttaacnggga 60
 aatgctattn cataaatata acgtattnta acatacaaaa atcaaaacat atttatncta 120
 ctaagtttat nctgttngca acagttgtct taccttaaag taaaaactgg gggccctgcc 180
 ctatatacac tgngtctatt tactgattac aatcacatct gacaatccca atcacaattn 240
 antntaatcn ccantcatt tatttaattt ataatacaata tgcttggtt tgaattttaa 300
 ttcaatngga aaaccaatca gatnggtngc acacataaat atactatttt gtattttatc 360
 gacatgaaga gataagttat attttttagat caccactgac ttttttactt ttgattaagt 420
 ctcaaattta tattatatat ttaaatattg gtttataata ctgaatattt gatgtgngaa 480
 tattattaag ccaaaagatt 500

<210> 1185
 <211> 327

<212> DNA

<213> Ctenocephalides felis

<400> 1185

cttctactct atcgctctg aagaaagacc aatctttaat aggctcgatg aagatTTTT 60
tcttggcatc aagaggtgaa ttatcttgtc ggaattcttg agaccatggg cggtgagctc 120
cgaagtagaa ctctcttttt ttgatttctt tcctcgaata attcggtttg ttaggagttt 180
tccaatatac ttgttccatg ctctgottaa tgtagttttc tggcaaattg gaatattgtt 240
ttgttaaadc gccaaccttt tggcataatt gcaaagatct cctcatgttt gaaattattt 300
acacaaaatc aatgacagaa taatagt 327

<210> 1186

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1186

atataagtaa acacaaaaat aatccattgg ggttccaata gatttatattc ataattaata 60
ttacttacac gtagttatat ttttatttgt aggaagtagt gatcattaaa gttcaatttg 120
aaaaaatatc aatttttttt tatcaaatgc tngtatgga attatatata caatttcatt 180
tataaatttg ccaaatacta atttataggt gatttatattt tctattctgc ccatcacaaa 240
taaatagaatt cttttttata ttccctccat ttgcttttag attcagtagt aatcaactact 300
tctatcaata atcaatgcat atccctaatt aagagagnag attcaaatat cattttatta 360
attctaaaga ggattcttat gttgatcgat attttaacat gntgaaagga aaactgaacg 420
acttgcctct ttatattctc attttaatag cagantgntt tttgaattag gtataatatc 480
tatattttatg cnaaataa 498

<210> 1187

<211> 496

<212> DNA

<213> Ctenocephalides felis

<400> 1187

aagcngaaaa aatatgaaaa atatgtaaac tгнаатааа ataaatatta taattatttg 60
gcaattaata ttaattataa aactattatt atatttctag aagcaaaatt ttttttcct 120
taaagatgtt tttttgtagc atgtgtatatt cattcaattt acaattatta tgaaggagaa 180
aaactgtcga atatggagtc acgttttact ttaaaatttc aataaagtat ttaataaat 240
aacatgttta atgaatttaa tttttttcca tttattatac acagagagaa tgctttatat 300
tcaaagattt atgttttaaa atcatttttc ataaagggtt tcatatacga cttttatatt 360
ctaaatcatt aatttttggg attttttataa taattaataa aacaaattta ttcagtaccc 420
nacntcagta tttaaaaatt attaacaagg atatgcttat attaatacaa tngnagtggg 480
naattatttg cncaa 496

<210> 1188

<211> 448

<212> DNA
<213> Ctenocephalides felis

<400> 1188
ccgggcgggg gaccagaagt ttacttacat aacttgngng ggnaacttat tccaaaaaga 60
tgngnttacg ggngnatata gnagaataag atttaatatg tnatattaca tggnaacttaa 120
ttttaattg natatcaatc tttagtataa gcaagactac gagggccgta ttttaatgna 180
tattaaaaat gatgngnata atcattatth ctatttaatt caaaagagta tatatttgna 240
atatctatat ttaaacaat attattaaaa taatcatata taaattatac agcattctat 300
tttattcaat ggcattgagca ttcaggacgt aaagngatta acagggttcg atcaaatag 360
aattctatag ttttgggtcta aaagaaacga aattttaaaa aaattatggt attcngnggg 420
tttattacag ctattaaatt ttttacct 448

<210> 1189
<211> 117
<212> DNA
<213> Ctenocephalides felis

<400> 1189
cgnacgcctt cttaancncc ttaaaangcc ctcgagcggg ccgnccgggc acggactttt 60
aaantacaaa ttnacggnat tgttataaac taacagaatt gacagtttta taattgt 117

<210> 1190
<211> 213
<212> DNA
<213> Ctenocephalides felis

<400> 1190
caacaacaat ttcnaaacia aatggctgga nggataaaac ggntaaaaaa nggtattcaa 60
tnggattggn ttttgggtacc ggtaatnccc taaagggagg caggggagggt actttttctt 120
tntgggagggt ggggtggactt nggcccaatg gtcaatttcg gttatttncc aaacttcaag 180
gcttttgaaa ctttggcatt caaaggacaa agt 213

<210> 1191
<211> 207
<212> DNA
<213> Ctenocephalides felis

<400> 1191
cgctatcaca gcaaaagaac cagccatgat tgccgaagtg tcggtgactc tcatgtgatt 60
catataatca gctttgtggt gcttgtgatg atgggtgctt ttgaattggt cttcatgttc 120
attagattca cgatcctggt gaattgggtg aaccaactcg gctccaaaat caggcgacga 180
agaagagctt tcctgaatcc tctccgt 207

<210> 1192
 <211> 330
 <212> DNA
 <213> Ctenocephalides felis

<400> 1192
 agggantagt aaagggaaat tagngcccat tgataccaaa acaaaagaat tnggtctggc 60
 ttaatttca acaaaaaaat gggtggggtt antggaggga atgaaaaaaa ttacttgga 120
 ttaaattggc gtctanttcc ctacccatt tcaacaagg gatcaacgaa aggggtgggc 180
 aatngttttc aagccgcatn ccaagttnat tttagtagga atcaagcccc tcaagcggt 240
 nccctacctt cttaattttg cttgcaaggg tattgaaacc gggttttaag cttggcccat 300
 tgnaccgggt ctttggttaa ccaaaaaagt 330

<210> 1193
 <211> 149
 <212> DNA
 <213> Ctenocephalides felis

<400> 1193
 ataaaacaaa cccccgatt ataaaatatn aaaatatgta ccatatcatt aggttaagna 60
 tgtaaattgc gctcgaaaat tatttattaa taaaacattc ttaaaataat tgattgcaat 120
 tatgaattca ttaacgatat ttgttatgt 149

<210> 1194
 <211> 342
 <212> DNA
 <213> Ctenocephalides felis

<400> 1194
 aaaatggcat tatatgcnaa ttataggctg agcctttata aatctgtgna tgaaccanac 60
 cactctatct tctaacctaa agtgtaattt tgttttacag aattttctta ataggtaata 120
 tttttaattg cagngtatca tattatagtt tgtaggtgtt atattttatt tgtaaattgn 180
 tgttcatatt tctcaaacga ttgtttatgt attacacagt attaaaataa accttggatg 240
 caataattgt tataacaaca ttgttggttag taataaaatt ttatcaatgg attattaaaa 300
 aaaaaaaaaa aaaaanannaa aaaaaaaaaa aaaaaaaaaa aa 342

<210> 1195
 <211> 131
 <212> DNA
 <213> Ctenocephalides felis

<400> 1195
 atgatggcat tcatgacgac ttctgtcgtg naacaggcat tttttgttca caaatcctgn 60
 ncagtaaattc ataaatataa cgaaactatt tgtagaaacc tttctcagta taaagacatc 120
 aacaccaaag t 131

<211> 498
 <212> DNA
 <213> Ctenocephalides felis

<400> 1199
 attattcata agacatcaaa gactttatta cataagggac aacatagtaa ttaaagttac 60
 agaaacaatg cagagtcaat acttcgattg cttataggaa ttcattggagg tcgaagaaat 120
 ttctagtata tttttgattt caaattttta tactcagtta atgggtatgaa tgctaagtct 180
 ctctctactt tattcatata tgacaatatt gcacatttgt gcacgaaacc ttgagttgaa 240
 tttttcagag atagttatgc atgaaatggt gaataccagt atttgctcca acggccttcc 300
 tgcattgcgtc tatatggaag ctatgaactc attttaaagt tgaagatttt atggaattaa 360
 ttataagagc ataatgactc tgagtttgag gaacttgctt atgttttaact aaatcatttg 420
 caacaacatt taaagtcgga actgttcaca actggaaaca ggatatctgc atttataata 480
 ctttaataat aattgcat 498

<210> 1200
 <211> 226
 <212> DNA
 <213> Ctenocephalides felis

<400> 1200
 ttaaatattt atatgatatt tctctacgat gtttaataaa aaaaaaattg attgttttga 60
 acttgaaatg tagatttgga atatctgcac gactgttatt aatttaaaaa gttcaaagat 120
 tgtttattca ataaggaaca tattaatat catattgtta aatttttata tattgatcta 180
 ttgtaatcta tctctgtgat taacatttac caattaaaat tggagt 226

<210> 1201
 <211> 228
 <212> DNA
 <213> Ctenocephalides felis

<400> 1201
 agtatataga tagatagaaa ataaatatag atatttaaact gtgtttaatt aaatattnac 60
 aacatataat ttataaatat atgcttagaa aaatacttgt agcagcatta aaattaacat 120
 atcaagcatt tgttttcata aaaattaaaa actgcttcat ttatatgatg aaactatgat 180
 cgtaaggcct gcaggcgact ctgcatttct tctaaatctt cttctggt 228

<210> 1202
 <211> 70
 <212> DNA
 <213> Ctenocephalides felis

<400> 1202
 acttagcggg cgccgtgcaa gtgattcgac caaagacgga caccgaagta gacgtggaac 60
 tataactggt 70

0091636-1301

catataactg tatgaacagt actatataaa tgaatgogtgt attataattt cgagttaaaa 60
cattttatatt gtgattatac ttgtgattta atatacaata tctattttta gttatgacat 120
gttaccgact caaaaaagtt gatataattga atttttatat aattttaaact atttgtgaag 180
agattttaata cttctattta tgtataattg taaataataa atacagtatt aatttgttgt 240
ataatagaag atattataag tatattttaga agcattgatt attaattctc ttaagcggtc 300
ttatctttta aactgttatc acattttctaa atgtttaata aataaaccag ttgaaaaaaa 360
aaaaaanaaa naaaaaaaaa aaa 383

<210> 1207

<211> 350

<212> DNA

<213> Ctenocephalides felis

<400> 1207

caacgacgac gacggagatg ccaaccacgg aaataactga ctacaaccac agaagaacca 60
accaccacca cgaagtcaac aacgacaacg agcaatacac caactccagg atttccaaat 120
tgggtgctat aattggcaag tgataagata atatccacta ttcaaataac tattaatgtt 180
aaaaaaaaat tcagtattat aaagaacaca aacaatatta ataataagtt attctttata 240
ttcagtaaca gtattaattc tgnntgttta tgtcggttga aaaattatac aaataaatta 300
atttggaaat atgaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 350

<210> 1208

<211> 147

<212> DNA

<213> Ctenocephalides felis

<400> 1208

attaactact tttgatgcat aaaaagctgc agaagagtgc actaatcgat tatgttgagg 60
ccacttcatt aacacctttg ttctaggtat gttatatacc tctggtttgg ctagtcttag 120
aacgcattgt ttgtgtgagg ctttagt 147

<210> 1209

<211> 304

<212> DNA

<213> Ctenocephalides felis

<400> 1209

caacttttaa tgatattcaa cttcaaactc acgtggctaa tattttccaa gttgatagaa 60
gtaaaattaa aataactcat acacctgaaa cttcagtaac tattctctct tgatttcagt 120
attaaaatat aataacaaaa agtgataatg taattttgtt catgagtttt tgctgaaatg 180
atctgaatat ttacctgttt tcgaattacc aaacattgaa aagttaaaaa taaaaaatat 240
ttattacttt aattttattt agcatatgaa caattcatat tgttactta taataaataa 300
tagt 304

<210> 1226
 <211> 295
 <212> DNA
 <213> Ctenocephalides felis

<400> 1226
 tggttagggc ccnccccgg acaaaccaca antattaaat tagaggagag gtttttttag 60
 taaaaaaaaa aaaaantaaa gggcaagggt gaaagggtggg atgcactttc ttaaataaan 120
 nnactgntaa ataaagntta tatttatatt aaattacaat taggactaca taatgcactt 180
 taaaaattat ggcatagtta agacttcatt agaaatacaa taagctacaa ttataaattg 240
 gattatattt nggattttta tcataaaaaga ataaaatcat tcagaatgca aaaaa 295

<210> 1227
 <211> 335
 <212> DNA
 <213> Ctenocephalides felis

<400> 1227
 ctggcacttc cccaataaaa aacgccannn aaacctaaaa ataggnaatt aaataagact 60
 gggngagcagt gatgatagcg gagctgtgtc tcttgataca actacaacaa tttctccttt 120
 aaagaatgct gcagataaaa ctgngaagac taattaattt taatgccaga taaacttgat 180
 ttttgatata catatgttgg tatgtagtta tgaatttaat atactttaat taaaccatt 240
 ccaaaaatca taattcatat tttttaaatt tgatttaaga aatcttaatg tgtaacttta 300
 ttttgttttt atttagagct gnaaagtttt attgn 335

<210> 1228
 <211> 225
 <212> DNA
 <213> Ctenocephalides felis

<400> 1228
 caaagggttn aaaagggtccg gnaacaatcg tttttttttc naaaataaaa ggantgtnaa 60
 ngggnggggn tattgggang aaaaaaagta naagaacccc aanntattgg ccccgcaa 120
 aatgcatgtg aataccttat ntcataaatg gcgggnctat gggctttggg cacaaaaatg 180
 gctatcaagn tacatgtcct gnaacaagnc taaggngctt tcgna 225

<210> 1229
 <211> 435
 <212> DNA
 <213> Ctenocephalides felis

<400> 1229
 tcttttaaaan agagttnngg ttaaattcat tggactnttc aagaaatgca caggcttgng 60
 gggngngtgga aaaccagcgg taaacttgga aaaaaatatt ttggatacaa agttaaacgt 120
 gctgatcctg aattaaaaaa aggntgngat aaaacctgtc ttaaaaaatca tatgtgtgca 180

atagttacca cagntgtatc agatctcatc cagtgcacaaa atatcatcaa atcatcatca 240
 agcattcttc agcatttgaa tatatatgtc ctaggagcta ttgtaatttc caattattta 300
 ttattataaa gtcatttttg ttaagttatt ataaatttag aataaatcat tatgttggaa 360
 atatgtaaac gctttgaaaa agctaggatc aatcaaata ttttttgaaa aaaaaaann 420
 naaaaaaaaa aaaaa 435

<210> 1230
 <211> 282
 <212> DNA
 <213> Ctenocephalides felis

<400> 1230
 ttttatatta catagatntt ttcttttatg tttttgtaag ctttgaaaaa acaattngtt 60
 tttcatatat attttataca caagaatgtc ctgtatgctt atttttttta tccaacgaaa 120
 taaaagaaca aataaacgta aaaaataact acattatgaa cccaataaa atataatact 180
 cctgtgtaac gcgggatgtc gngttcccat tgtaatttta tgtaaataatg tataatttga 240
 aagctcgtat attgcttggt ctattttctt gtatataaat gt 282

<210> 1231
 <211> 101
 <212> DNA
 <213> Ctenocephalides felis

<400> 1231
 cattcaaaag atatcattta aatttattgg gaaattaact ataataataa taattgattt 60
 atttcttaaa gctattaacc cattattttc aaattgcatg t 101

<210> 1232
 <211> 224
 <212> DNA
 <213> Ctenocephalides felis

<400> 1232
 ggttgaaccg ttcaagtatt ttataagtga tgtctctgat tgtgtatttt tcaaggcact 60
 tgattttatg ttcatgttt taatatcaat gtgccttctc ggtagtatat aaattttaca 120
 tagtaaatcc tgtttttgat tttatcgcac attttttggtg ttgtttttaa ttaattttac 180
 aagagaccat cacttataag ctgtaatttt actaaaacta aagt 224

<210> 1233
 <211> 347
 <212> DNA
 <213> Ctenocephalides felis

<400> 1233

caactgttga agatgagaag aaaccagtta ccaacggaac tttaccaaag attgaagaaa 60
agtgtgacag cgttgcagac cttaatggat ccataaataa atcttttagat catctaaagc 120
caccagaagt agcagttgct gatatcaaca cctgtattcc agaaaagaat aaagactttt 180
tatgtggtat cagagaaagt cagctcttan atcatgaact gcagtgggac tccatggaag 240
acaaggaatc caggcagaac gatgatgcag agtcggacca tagcgaagaa gacgacttgg 300
gtgaattgcc ggtaagaacc gtattggatc agtatgcacc tctaggt 347

<210> 1234

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1234

tataactata ataatggggc aattctgctt cataacacat agttgtcatg gcaacgcgta 60
gtgaagactt cgaaaacggt aagctatattg ccgtgcgac aggcgtnttt tacatataaa 120
catagcaaga aagaatgtta tgaaaacagc atcataagat tcttctttgc ttgtttatat 180
gtaaaataaa tgtagacatt ttnatattgc catgacaacg ttatattatg agctctgtta 240
cgccagaatt gcccataag tttaaatatt cttcaatnat ctttctccat tggtnaaaa 300
atatttttatt tacagtnnta gcacagtctt gtgaatctat ttgcgaattc tacattttaa 360
taataaatat aaaaacanct gaccgccatc cgcatactag aagaaacatt ccaatctgat 420
acctcattcc atttgntcaa aatnaaaaat aaaattacag ncgactgatt tattcctggg 480
tgcttaaaaa aaatccnt 498

<210> 1235

<211> 337

<212> DNA

<213> Ctenocephalides felis

<400> 1235

ttttataagc agaaccacca ggtgaaagat aaacgttcca ggatcctgca ttattgaaaa 60
ctttcagaaa attaccagat aatttatattt gtatacaaaa cngtctgtta tatgcagcag 120
cctggatgga agatggtaac ttttgtatta gtttgnaac tntttcttt tcatntggnt 180
gaaaattgga tcgatnatac acttttttga cgcgttgac aaaagtga aaatcatcgt 240
aattattggt tngcaataaa tcattcacta caaataaccc atgaatgctc agtggtnagt 300
tactgntgna actaacaaaa tctatgagag aaagtgt 337

<210> 1236

<211> 351

<212> DNA

<213> Ctenocephalides felis

<400> 1236

taaccocctta nggattccct tccnggccng aannnggtta acnggncgg cgggccgagg 60
gtccatccta gggcgaaaat ttttaataa gaaataaaat gaggtcgctt tctttttgaa 120
aaccattttt gttctttgnt aagcagnatc ggcaggtgaa acataaacct gncaggatcc 180

<210> 1240
 <211> 446
 <212> DNA
 <213> Ctenocephalides felis

<400> 1240
 ttgaaatttt atgtgtnatt atattttatta tgtagtaaa caagtgaac cgctgctata 60
 aagnattggt taatctgaat gtttatatat attgtatttt caagattatc ggcactatgg 120
 tatttcttac aacattcata ctatacaatt ataaaaatat atgcantttt tgnntgnnta 180
 catattggng gataaccac aaataatatg aaatggaaaa aaaaatgtaa accgngaca 240
 caaaatactg gagacaatta ttataacang ggatattcaa cttttaaant ttcatacaata 300
 gntttttatg anctcgcttt tgaaggattc attcatttat tcaatccaat gncnaatcat 360
 aaattttattg gnntttaggg gcactactat attggattaa taaganaaac aacttngtta 420
 tgaaaaaatt caantaaaac catggn 446

<210> 1241
 <211> 274
 <212> DNA
 <213> Ctenocephalides felis

<400> 1241
 ttttaagtcta aaagaaatcc aagctttttt atctcaaagt atcaattttg attttaaggt 60
 gattttaatta ttttatataa ttatatataa agaaactgtt ttacaatcag tgaatatttc 120
 cacaaaatta ttaaaactat ataaatataa tacaagtcca tcataggtat gactactttt 180
 gacgaaatat tcataatttt gaccaactac cctctttcat aattttgacc atattatcaa 240
 gttaacccaa acttatctta aatatgcat atgt 274

<210> 1242
 <211> 102
 <212> DNA
 <213> Ctenocephalides felis

<400> 1242
 tttggatcca ttcattttat ttacaactta ctatgtaatg taaattaaat gtgaatgnga 60
 ttattataat aagtgaaaat gtttggttatt caatcacatt gt 102

<210> 1243
 <211> 193
 <212> DNA
 <213> Ctenocephalides felis

<400> 1243
 ttcaaaatat acaaattcgt atatgttatt tattntatat caccaattta tacataagca 60
 tgggnaaaat tcttacagaa ttactgaaac ataagataaa atatgttcaa aaatatgatt 120
 gacgtatcac tggcagcttt gtaatattaa tattgaacga tatgccaatt gcaattgcga 180

aatatattat agt

193

<210> 1244

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1244

atcgaaatag tcttcagcat catcgactgt naccacacaa ggtgggtgctg atatgttngt 60
cagcgttttg agtaatccca aaagtaaaac cgctgataat gtaactgcta tgatcaattg 120
gagagatcta tcttgatata agtttcctac taaccaagca cctcgccatg aattcacaca 180
tataaatcca taaacagcgg tgtagacca cgaagatagt gcaaaacatg tgtttagattt 240
accttctaaa tatcttttga tcggtccttg tgccaagcaa aatataaaca tcccaataaa 300
gcctatggcc aaagacacga aactgctata tatttcatta tctgtataaa cataatgtcc 360
cattagattc cacgtgcctc tccaataccc gactacggcg ggcgcaacca gtgtagagc 420
aaatagagca tccaaaacat caagaataac tgatgatttc aaaggattca tagtcatcaa 480
tgatcaccgg aaggtctc 498

<210> 1245

<211> 112

<212> DNA

<213> Ctenocephalides felis

<400> 1245

tttttttttt ttttttttat aaaataatct tttattccaa acgtttcgac attcaatttn 60
ggngtcatca tcagtggata ttgaacatag tattttatat ctaaaaatgt gt 112

<210> 1246

<211> 379

<212> DNA

<213> Ctenocephalides felis

<400> 1246

aaocgttggc aaatatcaac ttccacatca tcancaaatg ttttatccca atcaggcgat 60
gaatccaaat gattgaattc attacactgt tcaggctgag tgtaaaataa tgatgttgga 120
ctttgaggcg gagtaaaatg attttagttcc actttatcat aaatgcgttc aaattctcgt 180
aaaagactct cagtgtcttg ttgaataaaa tctgtggtat caaattgctg aggaaatttg 240
gtttctccgc ttagagtttt gttcatacca gttgtagtag acaaatcctc cagcagaggc 300
aaatccactt tctcctccag ccattgagaa aatgcttcat tagtaaagtt atcttccagc 360
aagcacgaat cagcaaagt 379

<210> 1247

<211> 230

<212> DNA

<213> Ctenocephalides felis

<400> 1247

```
ccttgctgaa actnctcctg atatgggcca tttttttatt aaagcaagcg aaaaaaaatn 60
nggnaatgaa tgnctcagta atcttaatgc cgaagcacaa gaaaaatttg ccaatagagt 120
caacattata atcaaacaag ccaaaagtaa agggtttggt taacataata caaaatagca 180
attagaaggt ttagaaaggn ttaataataa ctaattttgt acctcggacg 230
```

<210> 1248

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1248

```
catctattaa ttccagtatg gtgcttnctt gcaacaacat cctggatagg aagtcttctg 60
attcaacctc cgcgtctaaa ttcataagtc cactttttcc atcttttagga ttagttaaat 120
tcgataacaa gattttttaa aacatctgta attcaagtaa atcactaata aaaaaatctc 180
tatgtgctgg ctgctcaaga atacttaagg cttcaaacc aacagcaacc gatgattggg 240
caatttcatt agcatcatct ccagcaataa natcaatctt gaactccttt tcttctatct 300
tatcattaaa atatgcaaac ataatttctt cttcagtttg actatcatca aatgccactt 360
catagggcag cttatctaaa acaacacgct tcggttcctt gcagtgtatg aattgataaa 420
cgggtcgtgtt accaaattca agaatatgtc taacaaccgt ctagtcctac ctttacattt 480
cttttatttt tgaatcct 498
```

<210> 1249

<211> 290

<212> DNA

<213> Ctenocephalides felis

<400> 1249

```
agtatcagta ggagtgttat gtgcaaattt ntaaatcgng tatataaaat atatatggta 60
tagattaaat gaatcagaac aatcttaaga gccacaaggt gtatggcatc tagaggatac 120
cgagaggata ctaaaacgaa atgatagatt taaaaagtggt ttccacctta tatgtcttca 180
aaatatgtaa ataaaaacat cttgaataaa ataatttctc aatgttngtc tgaaattgaa 240
agttgtgatt aaagtttatg ttactagatg aaaaaaaaaa aaaaaaaaaa 290
```

<210> 1250

<211> 345

<212> DNA

<213> Ctenocephalides felis

<400> 1250

```
ttaaataaga caaagaaatt cactccacca nttccctata ctatcccttt aaagcccttt 60
ngncacttca acgtccacat agntttccac agatggcgcc acatagaaat cattgctttt 120
ttataatcgn gttcgaaaaa atcttatctt attgttagtc tattaattaa gagttaagtt 180
```

tttggttaact tgtcaacttg ttttcggttg ttaatattha aataaacaaa tgaatgtaaa 240
 agtgactgac ttgtcgattc aaattggtat tacaacaaa tcagtcattt aactttgaac 300
 ccagtcaatt gttaaaatac atattataaa cacatacacg taagt 345

<210> 1251

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1251

ttaaaacaaa gaaaattacn ttcanatatt tttttatnct tagttcagng tgtgcatata 60
 ttggttattt agaaatcttt ataaacaata ggacacttac atttcaaaan taggtgttac 120
 gaataaatta tnatctcttt cactacatat attacaatca acatttatta aatangngtt 180
 gantttattt attgtgcaaa taataatatg ctttccatgn tctgtaatca actgattaan 240
 ttacttgtat nangcagtn ttttacctac acatttttagc tactggtaag ctaggcataa 300
 cgtgaaangt atatcttanc tcgttttgac atcaaaagcc ttttcanctt aatgnaaaga 360
 atggaaattt atgtaataaa ntangagcac cctttccaat cattgggtgat gccctangnt 420
 atgccctatg anaatgttgt catcataacn nttntganat aatccgantt tatatgaatc 480
 ttntatatgt gcgaatat 498

<210> 1252

<211> 258

<212> DNA

<213> Ctenocephalides felis

<400> 1252

tcttccatca tggagaacat ttggggtaac cntaatctta aagtattcaa ccccaataaa 60
 ggcagaagtt gtatagcaca cacnatgatg cantttttca aatgtggtgc ataaaataaa 120
 ggcttgaatt gtttgaaacc agctttaaga gcttccattc cttcaggttt gggagaacca 180
 tcttgtncat tggcttttgt ttctttcacc agtngtttta ttggatattc agtcttgtna 240
 ttccaatgat taatcctg 258

<210> 1253

<211> 364

<212> DNA

<213> Ctenocephalides felis

<400> 1253

tttttttttt ttgttcattt tgtntgaact taagnatata tnttnaggga aatttcaatt 60
 taaatnatcc gcnatatatc atacatgtaa ggcaataata cataatttaa ttaacgcatt 120
 aaatttaact atgtaaatta tgtanngntg atttatctac aatgttttta acataatata 180
 tttaaaaatt catggaaaaa tnatctctaa nagctaaata tantaaaatg gaaagcctgc 240
 gctntgcttt agcatattta taaatagcat ataataattn ataatanatn cnttanttag 300
 ganatcattg ataatcattt attcttgtat tacgnnaata taatagtaaa ttacaaatgt 360
 tngg 364

<210> 1254
 <211> 318
 <212> DNA
 <213> Ctenocephalides felis

<400> 1254
 cttaaaaaat cgccccacaa tagttaaagg canttggacg atagcaacta aataacataa 60
 anggtattat ataaagattc caatcaatta tcatcgtcac cgtcgtcgtc agccacaaag 120
 aagaaaacca accagtgact gatgatccaa cacgatgatg atgatgatga tgatgatatg 180
 tatatatgta atgttttacg gtgttaattt actattatcg gacgaatcaa gattttattt 240
 attaagatat gggaaggtag tcacaaatat ttttttntt aaatngatng tnnccattc 300
 ccaaaccaaa ccaaacca 318

<210> 1255
 <211> 312
 <212> DNA
 <213> Ctenocephalides felis

<400> 1255
 gtattttgtta aataaaaaata agtcacatct tanttctgcc aataatatta aaaatgcaac 60
 atntatccag atgcaactaa ctgaatatca ctttcaacaa ctcaagacgt acagatgtta 120
 cgataaaaaa acagcccaca ataaatcctt gttgcatatt ataaaataga tgcttccaca 180
 ttggtataata ggctaaataa aatccaacat caccagacc aggatatgat ttgaatatag 240
 caattaaagc tgcgagactc gttgctaata acataggctc atgtttgaga cgaagagaga 300
 gcggaagcaa gt 312

<210> 1256
 <211> 135
 <212> DNA
 <213> Ctenocephalides felis

<400> 1256
 aaaaaaagtt atactaaaaa aaatttactt gactgagcac ttagtacaaa aaagttatac 60
 taaaaaaatt tactcgactg agcacttagt acaaaaaagt tatactaaaa aaatttactc 120
 gactgagcac ttagt 135

<210> 1257
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1257
 tcaaaaagcc cttatacgat tcgtatacac nttctttaaa tgttcgctat atatttatnt 60

tccagtaatg gttttaataa aattatgccg atctacattt tctaaacatc ggcaaaatta 120
aatcacatta taatgttaac ctttcaaaaa aatactgtcc aaaaagtatc acactttgat 180
ctacaaatgc aaaatgggtg aaatcaagtg aagcaatgtc atttatacat caaaagccaa 240
tttagagtca cttgtgttca cccactttgt ttataacatc gtcaatcaag gcggataaca 300
acagtgttta ttgtaaataa attatttcta ataaattgac aaaccatcgg gtaacaaaac 360
aaaaaagtta atactgcttt tcagctttgt gatgggttaat ggttatgctc gaataaagca 420
ttgactgtgc catcaagaaa gtatactngt ttccattagt atttcgattt attccaattc 480
caatcatatt atcacaataa 500

<210> 1258

<211> 485

<212> DNA

<213> Ctenocephalides felis

<400> 1258

tacttttact ttgtaaaatg taaataatag gantcactga gacttaaatz atccattggt 60
attcatacaa gttaatgata tctgtgaggt atttaacgag caaaattatt ttgattctta 120
agaagtatga tgtttatagc cttcttaaga agttatgata ctgttatagc cttcacactt 180
tgagaaagat aatagaaatt gttctcacat aaatattact cattagcagt ttaacttaaa 240
aatgaaattc ttattcaaat ttgaataaaa aaaagttgca tcaaagtatc acagtataca 300
acaatattag aatcgatatc ataaattgtg ccaacattct gtgttgccac tgatatcatt 360
attcatttga aatatcaatg gaattatcaa ctgaatagag aagtatttgg ctgagcttaa 420
tataatacta atagcgagat ctgaaattaa caaagttgaa aactaaatag tattatttta 480
ttagt 485

<210> 1259

<211> 232

<212> DNA

<213> Ctenocephalides felis

<400> 1259

tgtaaacagc actttgcctt ttaggtttt atcgaaggct tcgctcaagg ttttgatggc 60
tttggtgagt tcagttttgg ctttgtcggg ttcttcgggg gatttgaaat ttgttgctaa 120
gcggaagaag aataagctag gacgttcac aggggttagt tctaagactt tgcagataa 180
aagcgttgag gacaccaggt ctttcacaaa cttctctggg aaatcacttt gt 232

<210> 1260

<211> 371

<212> DNA

<213> Ctenocephalides felis

<400> 1260

tactttataa aaaaaaaaaat caaatctaga ccaaccaatg atgagagtat agcgcagcac 60
cattcaatgg taaaatttat attttagaaa aaattactta agaataata ttgtattgct 120
cttcagattt atcttcagaa atctaaatat attttgaaaa tagcattgcc aaaacattac 180

tagccaacta tttcaatagt cagaaatgct attttcaa atttaagcaa tatgcaagtt 240
 attttttttg aactgataag ttcactcagt caatttcccg atttataagg tttcaatata 300
 atttgtaac ttcacttaac ttttaatctg tatatgaata ttctgcatat ctttctaata 360
 atctttgaag t 371

<210> 1261

<211> 401

<212> DNA

<213> Ctenocephalides felis

<400> 1261

tatctgtttg atgaattact agttctgctt tgttctctac tggttccttc aaatttgaat 60
 atgtcaaatt tgggtgtanat cctagtgtgt tattacttat tccttgattg tttgaaatct 120
 caataatttc gattttatcc aaacttttgt cacagtcaaa atctggtaaa atctcttcat 180
 aacgtttgtg aacataagaa tcatgatcat cttttggttt ataattaata atcgttcttt 240
 ggtttatttc cttgtaagca aaattatttt ttacaggcgg cgtttcgacg tegtatatatt 300
 ttgcattgct taaaaagctt gtatcgacaa aatccggaat tgaatgagaa tttaacgttg 360
 cgttgtgaga tgaatttaca aaagggtgat acacactttg t 401

<210> 1262

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1262

catcaccgag aagaactcct cggctacgga ntntcttcat tggaggcgcg ttgttggtgc 60
 ncgcagcatt acttttggat ttagaaataa attaattttg gattaagaaa aaaaaaatta 120
 aacataaata taacgatctc tctacaaacc catataagtn ttcattttga ttcttttagc 180
 ctttaacttt attttatatg aaaaactcat atttcttctt ttgcatcgga ggctttacat 240
 ttagataaaa gaaaacagat tatttgactt atttaaagaa ataattatan ttcagaaaaa 300
 gaatatttat tacttttatt atattcatta ccgtttatta tgattggttt taccgagcca 360
 aactgataat aacatgcatg tatatgctta tatagtcgca cagtttttta acattatcta 420
 ttatttagtc gttaaatttt aataacattt atttatttat ataatttagc gccgcaatct 480
 ctaatcaaaa ttacgtga 498

<210> 1263

<211> 452

<212> DNA

<213> Ctenocephalides felis

<400> 1263

ggcacgaata tttgtcttca taatcattac ccgtctttgt atattgagtt ttagggatca 60
 acttcttcac ataattctca tttataaaac gttggaacaa aactccaaat gttgttttcg 120
 ctttcgaatg tcgaaatagt gcataaaatt catcgagtc caaaaaccgt gaatgattag 180
 agtcacccaa actcataaga tactgagtcg cagattctgg aaactcatta ttatattcac 240

taactgtaat ttccatagat atttgcaaga taatcgataa atctatcaat attatcgata 180
aatatatattt ccccttttta gtcgaaagta ttatatagat tctattaaca caaaaacaca 240
cagacacaca aattagttta agtttagacg acattccggt gaaaaaaaaa aaaaaaaaaa 300
aaaaaaaaa n 311

<210> 1267
<211> 453
<212> DNA
<213> Ctenocephalides felis

<400> 1267
ggccccgtac cggaagtgtg agctggcaca tttgacttaa cttcattttt atcttcatac 60
tcaattatat tttcntttac catttctcca gcagaagggtg tcacattctg tgtttctaaa 120
tttgtatttt gataatcatc actaaatcta tttcgggatc gagaccgga tctgcttctt 180
ctaccttta attctttcct tgtaacaaac tccaaaaatc cttcagaatc tggcatcaca 240
acaggttctt caggttgtga atcogcttct tgcacgcata attggaaaat tgggtgtgtt 300
ttgggtgttc cagctgaatg tttttcaaaa atattcgatt ccgtgatttg tggcacttga 360
gaaggcaatt cgctattagc tttgatacca acaatagacg cccatgatgt cagttttggt 420
tggccaagta gactcacata gcggttgttc agt 453

<210> 1268
<211> 498
<212> DNA
<213> Ctenocephalides felis

<400> 1268
caaaggggca agcaccacct gggaaatttn naaatgcaga attgatgaaa attccaaatt 60
tcttgcaatt aacaccgcct gttataaaaa gacagtgtga ggcgttaaaa cagttttgca 120
cacagtggcc aaaaggttta gaatctgaag aaaaacaaaa taaacatttt cctgttacag 180
taattagttc tgattattgt cacagcggtc cgactataag aaatccatta ggtagaattg 240
ttactttgaa ggtcaaatta tcggatttac cactagacaa gcatgctcgg gataagtttt 300
tacggttagt tgggtgacaga cagcatcctg atacagatat attaacatta gtagttgata 360
gatgtccact gaggaacaaa aattatgact atggcatgta tttgctgaca gctttgttcc 420
atgaatcttg ggtcactgag ccttggaag cagataaato tgaggcggat atggaatatt 480
acgattggca aaataatg 498

<210> 1269
<211> 285
<212> DNA
<213> Ctenocephalides felis

<400> 1269
tgctgctttc tgctagttag gtatttgctg tttctaattg agtatttggt gaagtattnt 60
ggcttaaggg ttgtgattcg gtgaggtttc cattgctttc attcacgttt gaacttgag 120
cagttgtgga tgggcttatt tcatcattcg ttgactgtgg ttggtcgtct ttaacgtcac 180

tgtctgggaa agcaatagta aaagtatgat tatgagtga tttttatttg ctcgactatt 240
attattatct tactaagcaa acgcctgggc ccagggtcag tctgt 285

<210> 1270

<211> 498

<212> DNA

<213> Ctenocephalides felis

<400> 1270

tagagccttt ccaaaaagtt gttactgagg aagatttgat aatgcgccta gaaatagtag 60
cttgtgattc aacttgtgca aatgtaagac catgtgagct ggctcttggt ttattatgca 120
cccaacttga tagctgtgtg tctcaattgg aatctcatac tgctcaaacg atgcttaaatt 180
tggttgattt tgctattcac atgcagaaac agtgcaggat tcttgactcc agcttcttca 240
gttgtcacgg ttgtgttgtc aacatactgt cgaggtataa caatcaagat aaaagtccac 300
acaggcaaag acttgttttg aaattatctt cgcgcacatt gaaacttctt cgaccaacag 360
atcgtcttac atcacttctg cccactattg atgaaaatgg atgtctacca aggcttagaa 420
ctggcagtgt gagttctgtg ggcagtgaag atactgaaga ttggcccacc agtctcttgg 480
gtcccgttgt gagcaatg 498

<210> 1271

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1271

ccaancggtt ncanttgggn ntnnnccnat ttnnaattgn angggcccg gncntagggg 60
gtaantttaa ttggnatttg ggcnttncat gacngngcan tnagcttctt gacnanttct 120
ttttacacat atttttanaa tgatcatata catanttagg tgggcattcn aaaacctgac 180
ctttaccatc tttgcagaan aagnatnttn tgcnnctctt tcgnatctgg ctgatatcct 240
acaaccgccc catgtanntt ctgccgtctt acagctttcc ccagggtttt gatgagcaca 300
tattattcta cacaaaatgg gaaccatttg gaaatttgan tccttcttca aattgattgt 360
angaaatttg ggggtttctt tgcncnacc cacaactttt aaaagnaaaa acaanctnna 420
naaaaaagnt cccnacntgg ttattnaaat ncnttgggccc cgtaccnccc ttaaacccaa 480
ttttgtnata ntcnnnanaa 500

<210> 1272

<211> 157

<212> DNA

<213> Ctenocephalides felis

<400> 1272

tttttttttt tttttttttt ttttttnga tnggtngaac tttgtcactg antataatgt 60
cttttgtcac ttttattana ccaatatcag catagttgac agtaattttt ggngtatatt 120
tatgatgcat cacaaaacgt tcgacgtcgt agtatgt 157

TTT "GET" 926550

<210> 1273
 <211> 235
 <212> DNA
 <213> Ctenocephalides felis

<400> 1273
 tttttttttt ttagtttttaa taattattgt agatcaacat gttatattac tttgcatagn 60
 gngatatcgg ttactaaata ccagtatgtt tcttcacaaa ttctcttatt tctggatcag 120
 ctagtcttgt aaatacattt ggatatggaa aacttgtgca atttctagtt gaaaaagctg 180
 tcaagcctac taaaacccca ttttcgtcaa cgacgggtcc accaaaatca cctgt 235

<210> 1274
 <211> 400
 <212> DNA
 <213> Ctenocephalides felis

<400> 1274
 acatcaagca taattttcaa aaatgggtcca agaaaccgaa tgcaaattaa atggatcctc 60
 aaaccccgag gaaactaatg tgattcacgg tccagccgcg cctgccaacg aaggtttgag 120
 gggcttttga gaggaaattt atgacagaat agttttacat ggcgatagag tatccatgat 180
 cgacggagac accgatcgct ccaccacctt cgacgccctt cgggcacgca gtgcagcaat 240
 cgctctagcc ctaaggggtc gtggagtgtc caacaaagac gtcataactt tggtagaact 300
 caccacagaa gactcttttg ccattgtttt ggggataatt ttctcaggag ccacttttagg 360
 gatgttggat ggagcctgga cagtcccaa cactgtctagt 400

<210> 1275
 <211> 343
 <212> DNA
 <213> Ctenocephalides felis

<400> 1275
 ccaggatata atttgtgaga taattataaa ctattgtaaa taaaacataa ttttaattatt 60
 ggaaaaaata tttgttaaatt atttaggata agattgctca agtcataccc aggatataat 120
 ttgtgagata attataaatt atattatctg ctaccattaa acttaagtta ttgttaaaca 180
 aaactaataa attgtgtgtaag caaacgtttt taattggtag actgggtcaat tttatgaaac 240
 aaaaataatt aaaagtttgg taaagtttct gctaattttt tttgctcaat tgtaagcatg 300
 ttaagtaagg taggtgtctg ttttaataaa aaaatgaaat tgt 343

<210> 1276
 <211> 204
 <212> DNA
 <213> Ctenocephalides felis

<400> 1276

ttacgaattg atttttagagc attcaaatcg gatgctctgt tctctcaaaa acttaatttt 60
tattttctgc actctttgct tcgtatcttc gaaatagctg gatcggcctt tgccaaaaac 120
taatcagcac atctccctat caataggaat cgaatttttt tttgaaccat tcaaattggt 180
tgatccgtgc gtccgaaaac gtgt 204

<210> 1277

<211> 150

<212> DNA

<213> Ctenocephalides felis

<400> 1277

ttctatttgt tgggttattt tatttcagct atgaattata tatctttatt atttaattaa 60
gttttttaaat aatctctttg aaaatattga taaaatgtaa tagaaaatac aaaaattttt 120
tgaaatattt agcttcataa aaaattccgt 150

<210> 1278

<211> 337

<212> DNA

<213> Ctenocephalides felis

<400> 1278

ccnnttcgaa agtggttaact tatcggatga gcnnagctt tactaattga attgattgct 60
agagcttгна aaaatattgc agcagaaata aattctctta aagcgtagc ttacatggtg 120
aagttcanta cctctcgata acaaaagaaa atgcnnacta cgttaaaant attcaatttt 180
tttaaaaaaa nntgggttgt ttgctttctg anntgtgctc gttgggggcc cccctggcgt 240
gggggccccg tatttttgat acngctgata cggnggtaag ttacgccctt gatctgcatt 300
natatacaaa ttttaattta aaaaaaaaaa aaaaaaa 337

<210> 1279

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1279

aatttatagt tgtgtaaaat atttttttaa caatcggttc aggaattaat gtaacgttca 60
ataactaata cgctgacaag cggatcgatt taaaaaacgc ttgggcacat atgatttttg 120
gattctagga atcaaaataa gatactttgc tcaagaaacc atacgtntaa agtgaattct 180
ggttaatgaa acgttcctgt ttcacccatt tcagctgatg gtaaattgga caatgacact 240
actagctctg aacaaaatac caaattaaag accgtagaaa aatgcaagtt acctgagaaa 300
ctggaggcat taaccatcaa attgtaacag gagtagttaa aaattaaaaa aaaatgttat 360
atctatctaa gattttttgt gaaacgaaaa tcgattatga tgaaactcag ttgctcttgt 420
atacttatgt cgattgatat acaattctgt acatacataa tatgaaatta tccaaatatt 480
aaacaagtgc aatttcaatt aaaaataata acgcaatatt catgtcgctt caagtcaatt 540
cattactga 549

<210> 1280
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1280
 cgctgtttta atgagcggcg cgataaaata aatntgttga atacatggct attttaaaaa 60
 tcgtttttat atgaaaatta aataaacact atatattttg cgcttatatt gaaacagaaa 120
 atactatagt tcaatgagtt ttattaaaaa tattgaatta ttttacattt ggagataaat 180
 aaaatggttt ataattatat gatatacgca tgagtaatta tgagtttgcg ctaaactctca 240
 atcaccactg tgtagattca gctttaacat agccaatcca actgtaaaga gagaaggaat 300
 aaatgatagg ataaatggca ggaaaggatc aacaaatgcg accatacata tattccatca 360
 taataatgag acatacgtaa ataataaggn gagggaaatc ataatgggat tgagaacatt 420
 aataaaattc aagaaaactt attaaaaatt ttcagtgtgg tgtcttctgt cactctctac 480
 aaaggtagta aatctgagga ggtcgtatca aggataagaa atcactaaga tgaggatttt 540
 attgcaaat 549

<210> 1281
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1281
 cgggttccga agaagatgat caaatgatit togactctga tagtgatgat ggccaaaaaa 60
 cctcacagga aaatatatta acaaaaaata ctaacaaatg gatggacagt ttgccagctt 120
 ttgtttttga ccctagcata gacgctaaac aaagatccaa attgatagaa aaggaaatga 180
 atgaacaagc aaaaatcatc catgacttga gaacattggg tgcactctca ggaactatag 240
 aacatgaaat gagaagactc catgaattgg aaaccttaat ttttaaagat tttcgaagag 300
 atatgataaa gaaactgcgt cgacaaagta tgcgcacaaac agcaatcaag gataagttgg 360
 gtttttggtca acacagtact cttagaagtc gttacccgac tattgaacaa aatattcaaa 420
 tgaatgggtc ggttctcgag acgattgcga gtggcgatat cggcggagat ccagcccagg 480
 tggocatccc gatctgtttc ttaaagtgcc gggcagcacg tgttcatttg gagatcccta 540
 cgttcttag 549

<210> 1282
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1282
 ctgtaggtct gtgttcctcg attctaataa aataacagtg tcatttttta attaaaatga 60
 ttttaatttaa acaatcagtt atgttaattg ttagttaaat ggatagtttt aaacagtgag 120
 caagtgttga agtggttaagt gaatcagtgc atttaagtgt gtatgaatga aatagtgttt 180
 ccatttggat taactggata cagattttac tgaagacagc tggggaaaat atggcgttct 240
 gtcagtttgc aaatgatgga taattattaa actaaaggac ccggcataat gaaacctgaa 300

aatccacaaa actaccacat gaaaatctaa aaatttttagt caatcttaac gaaaccaacc 360
 aaagcaacaa aactatgaaa aatccaacaa catttcogct tgaactgtca tctaaaccga 420
 atcttttagat ttcgtagttc aacatcaaac cacttcaaga catctttcta atatttataa 480
 ttcacttata cgcttagaca agacaacttt ctatgacggc tcgattgtgt ncaaattggtt 540
 gtaaggcat 549

<210> 1283

<211> 383

<212> DNA

<213> Ctenocephalides felis

<400> 1283

agcnttaaat aacaatttca aattcaatat gaggaattta gtggtttttcg ggtagtggtt 60
 ggtagtttta tttgttggtta caatggcaga agacacacca gatgaaaatg agaaattcga 120
 agtggggaatg tcagagggtt ctttgaatga tgtagagcca gcaccacgtg tagtatgcca 180
 acttgaggga aacagattat gcaatgctcg gtgcatatct ctaggaaaaa gaggaggctc 240
 gtgcacaaaaa ggaacttggt actgcagaaa ttgaagaaat ttaatatagc ataatatatt 300
 agataaactt tgaataaaac cgtgttaaaa attttgcgca aaatatataa tatacctaca 360
 aattaaaaaa aaaaaaaaaa aaa 383

<210> 1284

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1284

gcgcacgga gcggttcctt aagaaacatc tatcogtcaa tctatcaaac ttgtaaccgt 60
 taaaaataat tataagagaa taccttaaaa taaaaggtag ttttcgttta aaatatcctt 120
 aattgtgaac tatgtgataa taagtgtttt aagatagtcg ctatgttaat atttttgatg 180
 acgagaacag aataagagaa caaaacggga tactaaaaga caagagcttt gtttgacacg 240
 acagttgacg gagactagaa tgcaattgtg attttgaata tattaaattt taaaataatt 300
 agaaacaaaa atgtcgacca aagacatata agctcagaca aatggggatg ctgacatacc 360
 tcagcggcga ccccaacata ggggatgttg tagcaaaatg ttatatTTTT ttaaagttaa 420
 ttggagaagt tttgtaatag tatttagcacc aatattatta accccggctt tcttgtaata 480
 atgaaccgaa attccggtga tgatgtagtt atgtaatgct gatattgggt accgaagttt 540
 acctctcca 549

<210> 1285

<211> 541

<212> DNA

<213> Ctenocephalides felis

<400> 1285

gttgctgtgg gtcttttact tttgggtctg gtgatcgctg gacttgtcaa ggccggattt 60
 ttcaagagga cgactaaaga agaattagaa gcacttaaag aggctgatca gactgcacca 120

ggaataagtg aagaggaggc tttagcgcac agccatgatg ttgaaaactc atctgaaaaa 180
gaagaagctt aaactgtgtt gaatgcaatt tcaagttgta aaatTTTTgt gctTTTTgta 240
tatagatatc tacaaatatt tcgcagaaga agtataagaa tgTTTTgagaa tatttgaaat 300
caagagaaaag ttgtgtcata atcataaacg tatttagatc ataagtagta aacattcaaa 360
tatcacttaa gtagtgtaaa tatgagactg aaagtgaacg attaagcatt tttatattta 420
aagtcataata atttatttct aagattagat atagaatatc tgtgatgaat aaattccaaa 480
cgatatatta taaattatta ataaatcaat tctatataaa aagaaaaaaa aaaaaaaaaa 540
a 541

<210> 1286

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1286

ccttattgca ggtgtgatag tgaaaaatat tattttataa tacgagtttt attcttgtca 60
attttaaatt tccggtatgc aatatgtatg cattcataca acaaataaat taccCGgtgc 120
acaattatgc agtgctgtta tttaaaagat aatgaaaatt gcataataat tagaaaatat 180
cataaacata ttcattagtc attttgtttt tatgtgaaaa atatgtgcat aaagttgctg 240
ctgaatagaa gtcggtttc ctcaataata tagaaagaaa tggttcaggc tgacccaacg 300
tgcagcctct ggctggacaa aaacattgac agcagacgag gatctgattt tccccgctg 360
gacttcgaca cgagttcaat gtttgaatcg aatgtccagt tgtcaagttc attagatgtc 420
atcgactggc aaaaactaaa attccaaacg gctagtatca acagaggatc gctgaggagc 480
aatcatttg tataattaga ccaaaagata cacattaatg gaaattcgga ggataagggg 540
aagattctt 549

<210> 1287

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1287

gggccaagga accaagccaa aggccaagac ctacaggtgc agctggtgaa acctttcctt 60
ttcctacaac atccatacag aggtccgggc attctatgga gcgaccgca ggggaaacaa 120
ttaggagata tccaggtaca actggtgaac gccccgccac gccaatgaca agaaccac 180
agagatcccc gggccgcgcc cccattagga ttataataac tccggtcagt aaaccctcgg 240
ggccgcgatc gcccccaaca cgtggcagaa tattaagtgc tggccatctt gcgcccccta 300
caccggtgta tcggcgcgac gcctctaagg gttcttcgcc cagaagaaga ccagaaaggc 360
ccagtgaagt tatgcaaccc aaaaggagac gtctagaatg aaacatccca ttttaattgct 420
gaagagcttt ccatttattt tgagagtcaa ccaagaattg cagcagcagc ttcgcagcag 480
agataatgtg gctccaaaac tctgcctaga caatgacacc ttogaattca tttgcctact 540
gaataatga 549

<210> 1288

<211> 384

<210> 1291
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1291
 gctttttcga taactcaatt tttgcttcaa gtaagcttaa gaatttttga aaagcttggt 60
 tgagtcccaa gtaagcttaa gaatttttga aaagcttggt tgagtcccaa gtaagcttaa 120
 gaatttttga aaagcttggt tgagtcccaa gtaagcttgc gaaatttttag aaagctaaag 180
 ttaaaaatttt tggtttcaatg tttcaatggt tttgaatcat tcttatcgga tgctcctttc 240
 tcttaaaaaac tgcaattttt tcaattgttg ctccgtatct tcgaaactgc taaacctgcc 300
 tttggcaaaa agtaatcagc aagccagtac aaatcgaatg tttttagaat cacgctcgga 360
 atcgtagacg aaaaatttta tccaaacaca cacacataca catacattcg atttttcttc 420
 agtatgccat aaatttataa agaagacctt gactcactat attaaaaatg ncatgtgaga 480
 tttttgcctt ccctaaagaa ggtgtaaaat taggaattta tcatattctt ancagagcgc 540
 ccttactga 549

<210> 1292
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1292
 atacagcaag caatcggtgc cagtttgtct aaataccag gacctgaaga aacttttgag 60
 gctcttcgaa ttttttgcag aggagacttc ttaaaattga ctctaggatc attgacaagt 120
 gtgtgcttca aaacaaatca aacaaaagct ttgaaattcc tcaacgacaa ctttgatcaa 180
 cctgtgtctg caaagaaaca cataataaga ctcatcaacg ccacgcgtac caaaaatgtg 240
 attttgaaaa tgctgaaaca actctgggat tgtgagaagc atccttctat ccgtaatgtt 300
 ttaataacgt ctgtcttcaa ttggtttgag agtgatcccg atgaggaaat atggaatttg 360
 ttgaaatcta tttttttaga tctgacgacc aaggataaag atatattcac catgcttctg 420
 agtttcgcca agtcgacaag gattatttaa aggaacatat tgaactttgt ggaagacgca 480
 acaatttgga gtccaggata aaatcaattt ggatgatgag aagtctaaaa tctgcacgcg 540
 taacgaaga 549

<210> 1293
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1293
 gtgaagtgat gtaaagaacg tatcattttt ttattacttt tattgattaa caagtgtttg 60
 atttcggttt acattaaact acaatttatt gacggctcgtg gcggctcgcc ctagtgaaat 120
 ttttgagttg aaccoccttat atgtaacact gatactgcac ttatatttat tgatattgtc 180
 tgtattttta ctttttgtgt tcattattaa aacttaaaaa atgaatgtcg aagttacgcc 240
 gaactattct tacgtctttg atttcgaaaa tgaatttatt catcaagaaa cgagaaattg 300

gatgactaaa aattggacat ggggctttta ttattgtgga atctacatgc ttgtaatttt 360
 tgggggacaa cattacatgc aatcacggcc aagatttgag ctccggggcc ttctgacagt 420
 atggaatgct gnctagcaat gttttcgatc gtggtgcctg ccggacagct ctgaacttct 480
 cacgtgctgc gcactacgga ttgtccatag cgctgcgacc aagcttcacg gacaagacgg 540
 tagcggttt 549

<210> 1294

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1294

gtaaaaatatt tcaagaaacc tgagccaatt ccaaattatt gtgacacaag tgtaagagt 60
 tcttctcttt catcgagtcg agaaagtggc cagaatggat ctaaaacttc agcaggcagc 120
 agaagatcat cattaaaaaa gaaggaagta aaaaataaaa aagattccaa acggacgagt 180
 ttgtcttctt accaaaccag ctctgaaatt ttgagaactg aaagggaaat attgtctcaa 240
 aacttggaag atgttacctc tccgctggaa actttgatcg aagagccgct aaataacgat 300
 ttaaaaggct ctaatcaaaa tgatgcacca caacacgtgt ttccggattc tcttgaccaa 360
 tctcatatgt cgtctttaga acctttaccc gattggaaac ctgttatttc agatgaagat 420
 tgtcgatcac tttcaaaaat ggtggatgta tattggacga gtttcagaaa gggatatggaa 480
 ggcaagggttgc tcagatggac aatggaacat atatcaaatt atttagggag aattttgcaa 540
 tcttcaccc 549

<210> 1295

<211> 547

<212> DNA

<213> Ctenocephalides felis

<400> 1295

naaatnnatg tggcaaatga aatgagtgag aatcggtgnt taaagcatta aatcgntaa 60
 ttagtatttt ttttgtatat tgggcttgcg ttttaacgnc ccgangatct natttnnttg 120
 nacaataaaa ntgttnattg nttaacatta ncaanttaaa antatctgan tcttgncttt 180
 aaaatgacan tntgtatngg tgctggtagc tggggccaaa gtgtttatgg tgcaatgcgc 240
 acgttaatcc attntattgc ggcaacacaa tattggntng cttgttacta tgattggaat 300
 tttgnacacg tncnagnagag cgttcatgtn atgggtaatc cgttcgggtg aaaattcaaa 360
 tatctgacat ttattgatgc cgatctgcaa gcottatatt tcaactgttg tgtattaaat 420
 gactttgctg gatcaaatga aactcgnnna ngctaaatcc ttctgcagtc tgaaagacnc 480
 atgatgcagc attcgcnttn ctgntgnatg aatgnggant cattttggac cntnngcttt 540
 gacaggc 547

<210> 1296

<211> 549

<212> DNA

<213> Ctenocephalides felis

Variable	Mean	SD	Min	Max
Age	35.2	12.5	18	65
Gender	50.0	50.0	0	100
Marital status	65.0	35.0	0	100
Education	12.5	2.5	8	16
Income	3500	1500	1000	8000
Occupation	2.5	1.5	1	5
Health status	75.0	25.0	50	100
Stress level	60.0	20.0	40	80
Life satisfaction	70.0	20.0	50	90
Resilience	65.0	25.0	40	90
Optimism	75.0	20.0	50	90
Gratitude	80.0	15.0	60	95
Forgiveness	70.0	20.0	50	90
Empathy	75.0	20.0	50	90
Compassion	70.0	20.0	50	90
Kindness	75.0	20.0	50	90
Patience	70.0	20.0	50	90
Humility	75.0	20.0	50	90
Modesty	70.0	20.0	50	90
Generosity	75.0	20.0	50	90
Altruism	70.0	20.0	50	90
Selflessness	75.0	20.0	50	90
Cooperativeness	70.0	20.0	50	90
Teamwork	75.0	20.0	50	90
Collaboration	70.0	20.0	50	90
Partnership	75.0	20.0	50	90
Relationship	70.0	20.0	50	90
Connection	75.0	20.0	50	90
Community	70.0	20.0	50	90
Society	75.0	20.0	50	90
World	70.0	20.0	50	90
Universe	75.0	20.0	50	90
Nature	70.0	20.0	50	90
Environment	75.0	20.0	50	90
Life	70.0	20.0	50	90
Existence	75.0	20.0	50	90
Reality	70.0	20.0	50	90
Truth	75.0	20.0	50	90
Justice	70.0	20.0	50	90
Peace	75.0	20.0	50	90
Love	70.0	20.0	50	90
Hope	75.0	20.0	50	90
Faith	70.0	20.0	50	90
Belief	75.0	20.0	50	90
Confidence	70.0	20.0	50	90
Trust	75.0	20.0	50	90
Respect	70.0	20.0	50	90
Honor	75.0	20.0	50	90
Dignity	70.0	20.0	50	90
Worth	75.0	20.0	50	90
Value	70.0	20.0	50	90
Importance	75.0	20.0	50	90
Significance	70.0	20.0	50	90
Meaning	75.0	20.0	50	90
Purpose	70.0	20.0	50	90
Goal	75.0	20.0	50	90
Direction	70.0	20.0	50	90
Path	75.0	20.0	50	90
Way	70.0	20.0	50	90
Method	75.0	20.0	50	90
Technique	70.0	20.0	50	90
Strategy	75.0	20.0	50	90
Plan	70.0	20.0	50	90
Design	75.0	20.0	50	90
Structure	70.0	20.0	50	90
Form	75.0	20.0	50	90
Shape	70.0	20.0	50	90
Size	75.0	20.0	50	90
Scale	70.0	20.0	50	90
Level	75.0	20.0	50	90
Grade	70.0	20.0	50	90
Rank	75.0	20.0	50	90
Order	70.0	20.0	50	90
Sequence	75.0	20.0	50	90
Series	70.0	20.0	50	90
Set	75.0	20.0	50	90
Group	70.0	20.0	50	90
Collection	75.0	20.0	50	90
Aggregate	70.0	20.0	50	90
Sum	75.0	20.0	50	90

<210> 1297

<212> DNA

<400> 1297

<210> 1298

<211> 547

<212> DNA

<400> 1298

<210> 1299

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1299
 atataaagca gacacctccc gaaaaaccgc ccgcctatga actgtttgcg ccccctgcct 60
 atgaaacggg tgtgaaaggg gcagacttaa atggaaagaa caaaggccct gaatgcactg 120
 tttttactat aagttagtaa aaaacgagtg aagtaaggct acctgtttat ggccaaatca 180
 aattaagata gaagaccaag agtcttttgc actttggagt tacttgtggt gttcagcatc 240
 tgggtggactg atttggccat ttgcagggcg ctgagccgag agataaaaata aaaaatgtgt 300
 gactgcaatg ataaatgttt atcaataact tatccagaaa gattatttag gatctttatt 360
 gctgcaaaact ttttcaaaaag cgaaagaaac tctggaaaat cattgctaatt ttatctctgt 420
 gatataataa attattattc aataattatg cttgtagttt tttcttataa atatgaatta 480
 gataattaat aaatataagt aactgtagta ttattaaagt cttntttatt agcaaaaaaa 540
 aaaaaaaa 549

<210> 1300
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1300
 gaanaatgaa tctctatcta gtagaagtat tactactgac gacttggaag ctgctcgaaa 60
 atacatgtct agcgaatcgc caataaggca gggatttgag ggacgaatca cgttcatcaa 120
 tcttgogcat cctaattcat cagttaacct gcaatcatca attggaatga tatcatttat 180
 attctttatt gtcttcaaac atttttgtac cttgtaataa aaacatgtat atttagatta 240
 agcaacaaaa tgtaaatacta tttttgtcac aaaagacatt aaccagtaat taatatgaat 300
 atttaaatat ttttattagt actccaaatt ataaatttgt gacttgaagg tttaaagta 360
 aaacaagaac tttgtgtgtg atcaatcact ttattaagaa aatatttgtt tttttgttgt 420
 catatgggtgc togtatatatt gtaataataa tgtatttatt gattagtata tttatcactt 480
 atttgtgcta attattgac ttatgatata tataatagaa atgaaaatgg ttcacaaatc 540
 tcattaatt 549

<210> 1301
 <211> 320
 <212> DNA
 <213> Ctenocephalides felis

<400> 1301
 gtgcatacgc gttacatatc aaatgaatat gaattttaat tactatacat tattatttgt 60
 ttttaataagc gcgccttaca taaatagcgc caaattcaca tgtctcacgg atggcgtgaa 120
 aaaggaaaca tcttgtgcag cagattcatg ttttctttta tacaataaat ataaagggtgt 180
 gcgggagtat ggttgcataa taaaaatgac gcagagccaa agaaaatact gnttccgtca 240
 tccagaatta tgctttanct nccaccccgga aaaacctgta attcaatgaa actgatgaaa 300
 ctntgccgcg aatgcctcac 320

TTT "GCTG" 549

<210> 1302
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1302
 actgggaaga caatcaatca aaattcataa aaaagttata aaaagttaga aaaatgggta 60
 caaaagtagc actggttagtt cttgctgttg ctgtcgccca agtttcctgc gatggattaa 120
 catggaagta ccatccatct ctttcagcat ttatgctgaa aggtaaagac gaaatgggta 180
 aagattgttc agctcctgga gaaataaagt gccaggattg tgagacagca aacctttgca 240
 ttgctgattgg tgctgatttc ttagaaacaa cattggaaac atgtccgagt ggaatgactt 300
 gcaaaccagg tacagggttg gtttagagcct ctgaaaatac attaaactgt cctgatcaaa 360
 ctctcccggt agacaacagt tttgtatgcg aatctattgg tattttccct gatctggaag 420
 actgtaagaa attccatttc tgtttccaaa tacagaaggt gttaaagctt ccacagaagc 480
 tttacctcat tctgaaatta aaatatgtcc atagaagcaa tcaaaagtca gaccagagtt 540
 gcaaaacaa 549

<210> 1303
 <211> 417
 <212> DNA
 <213> Ctenocephalides felis

<400> 1303
 gttaagagct gtcaaattat tgtacaaata tttctaaatt aaatacgtat atataattta 60
 ataaataata ttttactact atgaaaagag ccgcaaaaaa ccttctacta gaccgtctgc 120
 acaaaggcgc cgtcatggcc tgcatgggca tcaccgtttt gggaacactc agtcttggat 180
 tccgagttta tcaatacttt actgatataa aacctgaaat acaaagaaaa caaatattgg 240
 caaagaacga gctgttaaaa gaaggagcct cggacatata attatacgag agcaatatca 300
 cgttaaagga ataactccta ggatagtaga tatatttagt actgattact ccaaaaatgt 360
 atgttatata atgtaaataa gacttataat ttatttcaaa aaaaaaaaaa aaaaaaa 417

<210> 1304
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1304
 gagccatctt atcaaacata tttaatataa atttataata aatcgtgcaa agttttcatg 60
 ttttaattaa aataccgatt gaggtaatac gaagtacaat ggtggataat aaattagcag 120
 gattaacaga ggaaaagcta cgtgttttag taaaacaatg taacaaatgc ccgaaatgta 180
 atgaaatttg tctagaggat tttcccggtg ttcaatgtag tttgaaccac agactttgca 240
 agacgtgctt tttggcttcc ataaatgata cttgcttcca gtgcactaag ggcagcaaac 300
 catccgctaa taaaaaagat cggccaaagc agccaaatgc ccagacaat tctttccoga 360
 aggtaaactg caaatatgcc agtgacggat gcaaaatctc aaaaaagaag gacaaaatta 420
 gatttcacga atcggaatgt gtgtttcaac cacaagaatg tctggaaaat tctactgttta 480

tttaattgta ctggccggta tttcaacgca tgctaccttt gtgagaacat cattaaatgg 540
aacacatga 549

<210> 1305

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1305

atanaatcag tgttgacaaa tggtttgagg aaaatgagaa aaatacctgt cacaaaattt 60
tatattgcaa aaaaccaggt gtagaacaca tgtaatacta gaagaatggt taaaatgcag 120
gtgaccattt caaaggaatt tgaatatgat aaaatatgca tagatggaac tcatggta 180
aatgcttatg gatttaccct gcatactctt cttgtaattc atggggcagg ttatcaggta 240
gaattttgtt tcacaaatcg gcaagatgaa actttattta aattattttt tgagaaaatt 300
tttgggcaaa gtaggaaaaa ttgccacctc aacttttatg tctgaggatg cacctgcata 360
ctacaattca tggtcactcg tcatgacttc gacaaataac catttacttt gttcatggca 420
catatcaaga agctggaaaa gggactttaa tacaaaagta gacaaagaag tagatcaca 480
aagcagacaa acgttttcac atcttattaa gaatcgagtg agatgatttt tggctaagtn 540
aatcttatt 549

<210> 1306

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1306

gcttatgttt gtttttattt tgacgttgct aaaattttag ctttaatggt tgttttcttg 60
tgataaatta gtttttattt aaaggctagc gcataataat aatgatgcat ctgagcgctg 120
acatatctag tgcacttcag caacttgaga gcatcaagac agcaatagat gactcccatg 180
atccaaaact tcagctcagt actaatgaag atttggatat gataataagc ctattgcaag 240
atccagtttt tcgaagcatt gttactactc aagattcact aggtgaattg aattcccaaa 300
taacacaaca tccatcaata ttaccaggag attttgatat aactacttca ggtgatctaa 360
ttctgcggtg cccctttctc ttgatttata tgataatgag tacactgatg aacaaagagt 420
accctctgac aattaagtc aggtagccct cagagggttag gtatagcatc ggtnggggca 480
gtcangggaa cattacattc atgaagggat caatntngca atgaggcaac cntgatggat 540
attcccaca 549

<210> 1307

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1307

atatttttca atacgtgtga aatatattat atgggttaaca tattttattca tottgttttt 60
aaaataacta atttgctatg aaactaatag taaacaaaaa agttttttat gccggcatta 120

0995660 "TTTTT" 0995660

aaccagacaa atttttgtga aattgaatta tttatttatt ttaaacaatt aaacttaata 180
 aaaataatth catttttttt aaataattgg atgaataaaa aactttttcg tttactgtta 240
 tatctgtcgc catctgaaat actattgctt taggtgtata taaatatcta tttacatatt 300
 ttgcaggtat ctgattaata ctaatttttg aatcactggg ttatttataa aatatttcac 360
 attttttaggt tctaacagca cnacactttg ctacatttat tagtaaatgt tattaattaa 420
 ttatgtataa tactttgatt tcaactaaaa ttttgacgca aattgaaatg tgcttaagtt 480
 tacaagcagt ggccggacgt tggcaccocat cctgacttgg ggaggaagac attgtgtaca 540
 nctcatgag 549

<210> 1308

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1308

aataaatcat tttcaaaatg gtgtccaaag tgtttgttgc tcttgccatc attggcttta 60
 taggggctgc acaagccttt ttcgaacaag atgccgtctt agataagatg gtagatgaca 120
 tctctgtctga atatgagaac agcattgcaa gaattagcca agatagcaaa attgatatga 180
 ttgccgctga attcgaaaaa caaggatttg cccctgaagt cgatagagat ttggagaggt 240
 tcaacaaaga agttgaaagg aaacttagca aaaaagttag tgaagccgca aaggaatgcc 300
 ttaaaggcca acaccaaaaa gctctaggct acgcacaaga agcccgtgct aaggtcaagg 360
 cttgcagaga tgacaaacgt gatgaattca accaagttcg caaaatggct tgccgctgga 420
 gagaagccag ggagaacgcc gaagccctca gagcacaagc caaggagtgc gttgtgaccg 480
 cagccgtgtc gatgaagcca gagtttgctt gaaaggggtt ctccaagctg cccgaagagc 540
 aaagacttg 549

<210> 1309

<211> 445

<212> DNA

<213> Ctenocephalides felis

<400> 1309

attgcatgga agctagactg caagtatcat cggaaatgta tggatgaagt ttggagaaat 60
 tcaatataaa aatagagatt tttcaaaaaa gattagatta ctatcgtaaa agagcattat 120
 tttctatgca attagttcat gatctaaca tatcagatga caagaactta gaaaatttgt 180
 ttcttcaatc togtttatta tatttgcaag gcaataacaa atctcatgaa gaacttatta 240
 agttttattag atctccaagc aaagatgcat attttgctaa tggaactagt atattaaaag 300
 gatccaacaa tgaaaatctt gccatattag ctcttaataa cattggagt attgaatttt 360
 ctcttggtca ctttcatcta gcaactcatt cacttcaaca gtcattaagt agagatattc 420
 aactggtaaa aaaaaaaaaa aaaaa 445

<210> 1310

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1310

```
atgtatcaag ttatatTTTT ttttgtataa taattacatt cgtttagtta agcaacttgt 60
ttctagtgat aattgtagaa aagtgtagaa aaatgacacc tgcattatat cctgggatga 120
agaaaagctta ttttatgtcg atttcttttag atgacaaagg aggtaaccaa atagcatatc 180
ttacaaaatc tgaggacaat aataaggatc gtttagcaag tcggttgaga agcggatcga 240
gaatgattgt ttgaatataa gtcgtacaaa attggaatga aacgatgaac aatatacaga 300
tcttttagaca ggctcaaata atgtatgttt aggagcaact tgaagataat ggagatttat 360
cttcttaata taaaacctct aaaattggga acagtatgtc atatatgcat gaacttgatt 420
gatgtattga tgtataatga actgaagata gaatgaattc aatcagggtta aaaaaaatgt 480
tggcaaaagc gattcgattt agatttgctc ctgatataaa acttccagaa gtcatcatat 540
atgaatatc 549
```

<210> 1311

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1311

```
ttgacaagtt tcgatttggg tagttcttgt acttaatatg gaatcaatct catctgaact 60
gactgaacca caaacaatt ctaattcatt taccgttgat caaatagaaa ttgacatatt 120
gccactata tatgatatca tacgaagtgt tgaaagagat ccacatgata gcgctggcaa 180
aaccagagaa tcacaagatt gcagtgtgaa ggtatttagac ttacaaaaga agttagaaaa 240
aattcgaagt caagttactc agctacctgg aattgattat aataaagagg aacaacttca 300
atatttagaa acacttagga aacaattaaa acttaagcaa gagcttttgc acaaatacag 360
gactatgtac acatttgatt caatgaaaat ataaattggt taaaatgcct ctgcatctc 420
tcatgaatta tttgctgaat aacgacgttt agttcagaag ttgctgaatc ttatccagtc 480
gaagagctgg cagttagcca tttcgtatg atagatcaaa atcaatttag ggacacactg 540
agaagctgg 549
```

<210> 1312

<211> 423

<212> DNA

<213> *Ctenocephalides felis*

<400> 1312

```
aattnattta aagtcgaaat tccaatttgt tgtactttat aagagtaaag caatttcact 60
cacatctata atgtgtatac atgtattaca tttttatttt attaccttgg aatattgaca 120
ttttgaatga aacattagta attttgttgt ttaaattgctc acctattaca gtaataactt 180
gtatgtatgt tctaaacctt tttaaaattt agaaatgtaa cgagttatgt ggatatttgt 240
gatctatgct gaatgatact atttagtgga caaaattgca gttctgcatt aaccttttgg 300
tgagaatctt gcaatccaat attgtgtagt tttagtttat aatgtacata taagcaacct 360
taatgtaagc attaatttaa tcaataaaat cttttctata tcaaaaaaaaa aaaaaaaaaa 420
aaa 423
```

<210> 1313
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1313
 taatatttta ttgtaacaga ggcaaaatct agaaattatg ggatgatttg tgataagtgt 60
 gaccacatta atggaaccag agttttaata aacgcatttt gaaccacaag tacaatggga 120
 tgaacttaat aacttctgga attataatca tttataaagg tggactcatt tatttgaagc 180
 tctatgtaaa atoctgctct gattagtata actactgcat ttcagaatgg aaaatgggtgc 240
 taagaagctt gatataaaca agtataagct ggatgtgtca gatttagcaa agcaaaacta 300
 ccgacaaata attgaaaata aatatagcag tagtattcca aataaccaag aggtgcaaaa 360
 ctcacataat gcgggttcct tgatgtcttt gacaacaata tctatgtcat cttcagacaa 420
 tagttatcaa ttatctcaaa attgcgaaaa agagctagtg caagaaaatt ggatatatac 480
 tattttccag ntggtnctct ttatgatgct ggatnggaca taggtgcagt gcatactcac 540
 ctcgcacaca 549

<210> 1314
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1314
 gtcacaatgt gatatttatt tttatatattt aaaataagga acatgctgga gcaagaacat 60
 gtatcattaa atttaccgga tattaaggag tccgttactc atagaaaaag catatggcgt 120
 tgggtggaatc aactgtccag atttcaacga agtctatttt atatgatagt attagttcta 180
 ttttttacac tcttatattt attaccaagt caacataatg gagatggaaa aactatagag 240
 catatacaaaa taacaccaat tgaagcaaat aacttaccat ttttacaata tgatcaagt 300
 gtatcaccta ttaattttaaa tcaaaattca gaaactaatg gcttagattt agaaaaatca 360
 attaaagaag tgaggaaaaa tgtgattgat gaaccaaacc accacactga ggcaatctat 420
 ttaaaaagta gtcttgggac tagtcatggc aaagtttttg tggccaaaaa cagaaagaca 480
 gaaagcagtg tgaagccttc aagctgcttg gaagggctta aaacattgct ggggcacgcc 540
 attaaccaat 549

<210> 1315
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1315
 attaaattga aaacttcac tcttaaatga tggatcaatgt tacataaaat tgtataagat 60
 agtttgtgtt aaattttacg acgctttgat aattttattaa taaacattaa ttgatatcag 120
 agtagagtca aatcgatata taatattatt ttacctactt ctctggaata caaatttatt 180
 aataaatatc gatttcagtt acaagctgat cagtagtata ttttctgtgg tcaaggattg 240
 tcatcatgtc aactaaaata atattattat ccgcattgct gttgctaata tcttccactg 300
 ccgtccaggc ccaagtatgc agttgtgtat gcatcacaat atgctgcacc cccgaacagc 360

tttcaaccct cgccctgtccc caagcgcagc agcagcagac ggccctgactg tccaaactca 420
 ccctcctaaa aataatgctg atgcttacct cgaatacata caggcacaaa atattttaaa 480
 tcagtactta catcaacagc agtgcgacaa tccaaaaagt naggaacaaa aattcttggc 540
 acagcagca 549

<210> 1316

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1316

gtttgcattt tcattgtttt tgacgcgaaa aataaaaacta caatgctgtg acatatatcg 60
 ttcaagtgtc aaatagcaca taaaaccgta tttaaatgaa aaacctctgt taacaatagt 120
 tggcttgtgg ttgcctatgt cgtttaccta ttccccctgt gcaaaccocg ggttgtggga 180
 atgtgtaaga aaattagtaa aatgctcgga acgataaaaa ttgtgcaagt gaaaaatatg 240
 ttgattaatg tttaattatt actgtgaggt gaaattgata attctgtatg aatttaaaat 300
 taacggattt caatatggaa gtgactgata gtgatacgaa ttccagcaat tataaggaga 360
 cgaataaaaag tgaaccatcc aacacgtctc ctgaagacga tgcaactggc tgcaagatg 420
 aggacgagga tgagctctac cttcaacttc atcttcatgt aaatctgcca actaaagcct 480
 cacttgattc agcatgctca agtatccagc agtcctcaac gttgaaatag gacttccgtc 540
 ccgaatgct 549

<210> 1317

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1317

gtcatattat tattgaaata gaaaaactaa ttgttactaa ttaactaact gattaattca 60
 ttgattgttg gaataactat ctgaaagaac aacgctatgg ctgacgaagc actaaaattc 120
 ggccaagatg gacaaccttt gccaaagtgt gaagaattat taaaaatgtt agaaggaatg 180
 gacatgtccg aggaagacaa acagagcctg agggattcct tgcttcaaca ggcaaatagg 240
 gctgcttctc aggacccac gggggctact ggggtcacat tccaacaagt cttgttcatg 300
 ttggccatgg tggcgattat agtatcagtt ttgcattttt ttgcaaataa attatacaaa 360
 tctctgacgt acaaagacag aatgcgtgaa gaaaaaagga aagccaagga ggagagaaag 420
 aacaaggaaa agaagaaagt caagtagtca ttttgaaaac gacaagactt ttaaattccat 480
 aattattata cttaccata gttcagtcag tcagatcaaa acagtntgat attaaaaataa 540
 ttttccgta 549

<210> 1318

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1318


```

aacaaacott cgtggagggt ttgtttaata tcatccagcg cgcagcaacc tcaaagaaca 60
tgcacagaat taaagtctga cactctggac atccaatgcc aaaggggatt tcgctcagtg 120
ccctgcacca gccgtatgca gcccgggacc agggcacaact tggcatgcaa accaggattc 180
cagttgctca aagaaccaga gttctcgcaa attaattgcg gaaatgatgg gatttgggat 240
aattgtttgt tttcttgoga accagaatgt ggaaatccaa caccaattga aactgttttt 300
aattcggacc cacctgtaac gtacttagca ggtcaatata catggtatgc aatgttggtt 360
acccgaaggg aagatttatt caaaggacaa tttctattca gttgtggggg gtcaataatc 420
aactcacgaa tgatagttac aactgcttat gcgctcataa gccagaaatc gattggatga 480
tcagagagtg tgtggatcta gtgtattcgt ttaataaaca gagatnttat gctagcntac 540
gaatagaaa

```

<210> 1319

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1319

```

gaaccacott caagaactcc atatgagtca cagtacgctc gagcatctga agaagaagat 60
agatcgcaat tagtgtttat catagttacc tctttattct tctttatcat aatatgttgt 120
atcattgaag tattgcgaac aaattatcaa cataaaaaagc gaatagaaag agaaactgac 180
gaaagtatca taattgcgaa agaacatgca actaagctgc acgaatcacc agctgttggc 240
atgaaatttg gtggatataa agcggtagca actgttgaag atgagaagaa accagttacc 300
aacggaactt taccaaagat tgaagaaaag tgtgacagcg ttgcagacct taatggatcc 360
ataaataaat ctttagatca tctaaagccc cagaagtagc agttgctgat atcaacacct 420
gtattccaga aaagaataaa gacttttatg tggatcagag aaagcagctc ttagatcatg 480
aactgcagtg ggactcatgg aagacaagga tccagcagac gtgatgcaga gcggnccatac 540
gaagaaacg

```

<210> 1320

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1320

```

atgatctata aaccctcaaa ttcttaagta aaactgtaat agtattttta cttataatta 60
ttagagaata ttttatatga aaaaacatgg aatttattat ggcaataaag cgtgatgcaa 120
tagtgaaaaa aacatctaag tgaaatcaga aaacaacaac aggaataaca ttttgaatca 180
gtaaaaaataa cggatgacac ttcaaggtg cccagatgaa agggtgacaa ccccggtgcc 240
gccgtctccg ccccgattc cgctgcagac ttatcttttg gaggacgtta gaagggaacg 300
aaaaaaaggg ggctaccott ggacgcactt cgtaagagg cctttcgatc ctgatgctcc 360
acaggaaatt ttggagtacg accgggtccc aggcagtaaa cgtaaatagc gaagcctaga 420
tgttcaggaa ctagaagagt ctccgagtg cactagaaga agaagagcgg atccgtggag 480
agtctttggg aaacgaacca gacttacggt gatccaaaca caggagtaaa tcagtantat 540
agaagacaa

```

<210> 1321
 <211> 384
 <212> DNA
 <213> Ctenocephalides felis

<400> 1321
 tactaaaaat aatttttatca ttttcaaaat tattgtgcgc atgtatttaa gggtaaaaatg 60
 aaatttttga gttcgattgc gtcacatgta tataagtatt attgatgcg cccctagagg 120
 gggttcagtgc aggtgaacga tggtatttat ttaataaag ttgcaatgaa tgacgttaaa 180
 ggacttggtg aaagaaacta ctacttataa ttagtgaata ttatttatta ggacgaagta 240
 gttttttattg tctccctaatt ttatctttgc gagtttagtt aattcaaaat atatgatitt 300
 agaattattt gttactttaa aaaacatgaa agaaatctgt atttgaataa aaagatacac 360
 aaacatcaaa aaaaaaaaaa aaaa 384

<210> 1322
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1322
 aaagtgatgc aacaattatt ttcaaaatac aaaagtgtta aaaaatgggc gttaaaaata 60
 tatatttata ctgcattctg atatgcctgc tacattatgc atcttataacc aaaactgaat 120
 ctattaccaa caattctttg gaagaattgt acacaaacac ttctgccaaa acagattcca 180
 ttactctttt atcaaaaacc agtctaccgc ctgatcaaaa tgccacgatt gaaaatcctg 240
 atccagtgtc tcttgaaaag ggtccgctg aacaagaaca acacagctcg atgtctatat 300
 tottcgtgct ttgtgtgctg gctttaggga ttcttttaatt tcatttcatg ttacaaacag 360
 ggtttcagta tttaacctgaa agtattgttg tagttttctt aggtgcttta atcggttga 420
 taattaattt aatgtcgtct aaaaatattg caaattggag aatgaagaac cttttcacc 480
 acagcgtttt cttagtgtct tccgtataa tattgaatcc ggtatattgc ataaggnatt 540
 ttttcaaat 549

<210> 1323
 <211> 29
 <212> DNA
 <213> Ctenocephalides felis

<400> 1323
 tgtcanggct tatcggatac ccgtcgacc 29

<210> 1324
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1324

ttttaatttt caattcaata ctttgcagga tagattttgc gataatgttt tattatatag 60
ctgtaatggg aaatagcaat cgtagtcaat tcctcctatc atcatgtacc atggaatatg 120
agaatatatt atgtacttct gcaaacagtt tcctgggtgc tcctcagctt atattaagta 180
gtaaaatgca gtagatgagg tattgtgacc aaaattttaa aaaaatataat tgcctattta 240
ggcaatatga tatggtaccg gcaaagtgtg ttttagtacat ttcaggtatt tttatataaa 300
atttttaaac gtgtacctca aagagctgcg ctatctataa tgttccaatg atgtgccgta 360
ttgcatacaa tgctggtgtt tccaaatcct tgagaacaat tgcattaaat agtgatgttt 420
gaatggatac ttttgcggcc ttatgaacaa atgtgggaat tgcaagcaat aatacttcta 480
gagtagaaat tatgctctat ttttgtgngc acatcttaga ctattgagat ctagtagatt 540
gctgaatgag 550

<210> 1325

<211> 491

<212> DNA

<213> Ctenocephalides felis

<400> 1325

atcttaatgn attaagtgn aattaatata agggaattta atgaattaca ttttgaaaat 60
gagagcaaaa ctactttagg atacattttt tgactaaatc atgtaataaa tttaccatgg 120
cccattggaa aattttttctg atactatcgt ggcgattaac gtgttaataa ttttatagtc 180
cctagtctcg gttaaaataa aaaaacgtgt ctcatattta ctattcacct atattnacca 240
cttcatttac ttcttgattc ttcttctctt ccatatccga tcttcttgat tcttcttctc 300
ttccatatcc gatcttctg attctttttc tcttccatac ccgatcttct tcattcttct 360
tctcttccat atccgatctt ctttattctt attctctttc atatccgatt ttcttcattc 420
ttcttttctt ctaaatctga tctccaattc tgctcttgct tttcttttca tttattcttc 480
gggcatttgt g 491

<210> 1326

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1326

ccacgggata gcagtattat tgatgcattg ttgagcagtg tacgcgagtg caagtgaagt 60
attagttgaa caatgtgaaa tcatttctag aaattttatg tgatattaat aatattgttg 120
tcgtaatgga ttcagaataa tgtaataaat gatctttatt tgatgagatt attaaaaatg 180
aatattacaa cattcacgca atcaagtaat ttagaatcaa tccaatcagc caattaacaa 240
aatcgacgaa tatttttcaa gttttattaa tcaaaacctt aaaaagttga taacaagaca 300
aatgatacct acgagcaatc aacaagtatg cctagaagag accttcoggt gatcattgat 360
gactatgaat cctttgaaat catcagttat tcttgatgtt ttggatgctc tatttgctct 420
aacactgggt gcgcccgcgt agtcgggtat tggagaggna cgtggaatct aatgggacat 480
ttgtttatac agataatgaa atatatagca gttcgttctt ggcataggct tattggatgt 540
tatattttgt 550

<210> 1327

<211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1327
 gttcnnncgc ccacanacat tttcaaaatg ctaaaagcan caacaataat ttttatcgct 60
 ttcaattttg tgtctggtgg cgtttatgat ggttacaaac tttacgaaat aagaccccaa 120
 acaaaatccg aggcttacga tttaatggaa tggcaagtaa aaccaggagt cgatttctgg 180
 tccgaagcca ggatgctcaa tcaggctagc caggttatga tctcacctga acttcaggag 240
 gaattcgaag gatattctgg caatggtaat tatacttggg aagttgctga ggataacata 300
 gagagacttt tacaagattt tgaaagaagc agaaaaaagt caagtgcgcc acgtgacgat 360
 ggatttgatt tcaatgatta tcaaagatcg caaacgatca acttatacgt aaacaaattg 420
 ccaaaacgta tccaaaatat gtgactgtta aggatgaagg aagaagtttt gacagcgaat 480
 catcaaactc gtccaattac agatggatca attccaaaaa caagcgcgat ggtgatcgct 540
 gtggtgccat 550

<210> 1328
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1328
 ggcaaaagct cttgaaaagt tcttctgcga caagtgcctag tgtagaaaag ggcaaaagttg 60
 gcaggccgag aaggagtaga gattaactag tgaaaaaatg atattaagag aacattaaat 120
 aatatcagac agtgattttt tccataaaac aatcgactaa tgatttggtt ttctgaatta 180
 cttttcagaa ctgtacattt tgtttaaagt ttggtgaagt ggtgaggact tgataaaatt 240
 ttatttaaca atgtttttta ttcatagggt agtttaaata catatatgtg taattaaaat 300
 attatttaac ataagatttt tacattatac aatattatat aggatactag cattatttca 360
 gtaaatgaag gcatactgct tttgtgattt tttaatttta tggatcatcat ttacatttta 420
 tatcaagtta caatcgatg taaatattta atttaatat taagattatt atcattagta 480
 ttagaatttg taattgagta gacaatcagc aaagctgtgt gattcgataa acattttgaa 540
 tgnaagtaat 550

<210> 1329
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1329
 ggaaactcctt aaattctctg atttaaaata tgaagaaaaa gatcttcata taccatctct 60
 tcaggagggtc aaagaagttc tatctggaaa gttacctaac aatttcactc atgtctctgt 120
 tgatatagtt gagtgccctg atttaaccgc aaaaaccatt ttgtctcgct gcaccagggt 180
 tgagtggaaa tcctaattta ctogaactag gtggggctcc ttatctctta ccaattgttc 240
 aaagagaaaa aatatatgat ataaaaaaca ttgctaagtc tttggacttg agtccggttt 300
 tagctatagg agctggtgca ggaccatggc catatgctgg tgtatgttgt gaggggtattt 360
 tcaatatgca cctagcatct gacggtacct tgaacaacaa aacacacata gctactgtta 420

acatggaaaa tagtgcacgc gtacttggaa cgggtccaaat gatgaacacg ttgtgcatta 480
ttaggaaatc tcttctgctg aagacatgcc ggatctgttt gcgtgtcatt gngcactagc 540
atggnctaaa 550

<210> 1330

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1330

gcgcttcaga attatcgtaa ttgtcgaata aaatatatac ttataataac attcacatat 60
tgnatattaa tagttttaat tttaaattta ttactaaata gttttaattt ttaataagtg 120
gtgatacaag atttagataa gagcccgatc gtcccggccg gtgataacag cgcaacgccc 180
agcagagact tagcatcgag cgccctcgtc ggttctcaac ccctgccaaa tcgaattcat 240
tccgaacgca ngagacagcc actctcaacc ctattcggca taggatggtc agactgccct 300
gggcccangc gtttgnttaa cagggggccgn taaagacgac caaccncagn caacgaatgn 360
tgaaataagc catccccact gnttcagtta aacgtgaatg gaagncatng gaacctnacc 420
cgatcccacc ttaagccaaa tcttcaccaa tcttcttnga acatcaattc ctctngcga 480
agcngnngtc ccagtagtgn cgacgttata tgtaacaaac ncggtcttaa ggaagangcc 540
gntctttcta 550

<210> 1331

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1331

atgaagcgna gcgntatcac taataattgn tatatcatca tctaagngat aattaaaact 60
aataaaatta agattttttc acttttaattg cnaccncaa cgncatagtt tcaatggtgg 120
tgactgnatc tggctttgnt acnattgagt gcnaataatt gatgacacat cgttttgata 180
aataagaaga tcaaagtatg ncatacaata ttttctctag tatccggggt ggaaacaatt 240
taatttatca aaattataat caactttttg aataaaactat gatgacatga tgataagaaa 300
ctaaaatgat attacataat tgcatacaat catttttcaa cccaatattg nttttatcct 360
gaaattactt gatattgaca tcatgctcaa attttatttc agcattttca tttgcatcat 420
gnaatcgta ttttattacg tattcaaatt taccggtcat ccgtagacca tagtctacga 480
tagtgatgnc agaagctgct tacactgnon atagtttctg aaaaagcgat aaatctntaa 540
atncgattaa 550

<210> 1332

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1332

cgcacgtata attttcataa cataacctta aaacaaagaa cattttaata ggacttaaaa 60

aaggataaag gataactgaaa attagtgttt aatagggtcga tagagactgn gcggttcaca 120
agtttttcca ggacattagg taaaggaata gttctcgggtg gatttttgat tataacaaag 180
ttaattttta tttttcgaca tgtgtatcgg ttaattatcc tttatcctga ttgngattgn 240
ggttttgttg tagttatatt cttaaaggca gtgtactgtg actgtgaccg cctgtgcctt 300
tgcattgtgtg tgtgtgttgt aagttgtaag agtgctttta ttggtggaac cagttttgat 360
caagagtcaa aaggaatgac tttgaagggtg cgtcattgaa aacaaaatgc ctggtgcatt 420
tctacatatc cctaatacct attagaacct aattaaaant aaattaaatc tcagcatcta 480
gatcaaatat gagnaconggtg atttcttgta tacagggtcc tcattattac atacattcct 540
ccatactcat 550

<210> 1333

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1333

gtgttatcaa aaattttcaa catatgatta gaaggngaaa agttgggtgtg aatgatgtta 60
aaatattcctt atgataaatg nttttgaaaa gaagcaatat ggattttatca gatatagcgc 120
ggcgtctgaa gaggaacttt gatagctatt cctcatatcg tcgtttcctc attgttttaa 180
tactgtttat tctaattgctt ttatataatgg caccttcagc cttcagatgg ttgctatcga 240
gttctaagcc tctagaaaat tatgaatatc gttgtatatc agacagatta gcagcataca 300
gtttcaaaag tgccgaatat gatgtgaata ttagacataa acctctgcaa ataaatgaaa 360
aagattttat accatatgct ggtaacgggt tctttgggtt ggagatatct gacatagggtc 420
atataaatat aaaattgggt agatcactaa atcttcctat attttatcac ccattgggtta 480
tgcattctgct gcaatggaaa tagcttcgaa gctncgttgt tgaatataaa aaaggatcat 540
tcacaaatcc 550

<210> 1334

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1334

gtataatgca ataaataaat ctaaacatat aaatcactaa attatcgctg gtcgggtcctc 60
aattgcatta gtgaaaacaa attgtgacca tacagctata aaaaaagagc ggcggaatca 120
ttaattaaag tttggctaaa ttttattttg ttaaataaaa gtatgctctt tattttttat 180
gtgtagttat ctgtattata caatgagggg agaattattaa catttctagt aaaaaaagt 240
taccggcata aatgtttgaa aatgagtgag cagatgagac aattatccaa tagtaaaaaat 300
ctttcccttt ctgtcaatta taaatctcgt gacaaaacca taatagagga agctattgaa 360
acaaatcaag taaaatgtca gttgtcgaag agtttaatat ggggatgctt gaatgcagcc 420
attctcgcta taattgggtt gatttaattg acgatgcttt atccgtggca gtgaccacag 480
atgaatgagt ttagcagttt atactattga ctatttcccc tgtgctgtat atttatattca 540
actggtagac 550

<210> 1335

<211> 466
 <212> DNA
 <213> Ctenocephalides felis

<400> 1335
 gtaacttggg aaaagagctg tctcatgcaa agaaagataa agaggctatg gtttcacaag 60
 tggacatttt gcataacgaa tatgataata tggctgataa attagtgaag tatgaaagag 120
 aacatgtttt taaggccagt ggagaaccag ataaaaaaga tgactagatt aataatccca 180
 ttcattttta ttttagattt tttggaattt tttgattcat ttattctcac atatgtttta 240
 attttgttta attattatta caaagtacat attcaaacat atttaactgt taaaccatac 300
 taatattgct tgtttcctaa attatttaca ttaaaattta tatatactct atgctaattg 360
 tttgttaaga atttgtattt gtgcttaagc attgaatatt tatgtagttt ataaaactat 420
 ttatataata aaatttaatc caaaaaaaaa aaaaaaaaaa aaaaaa 466

<210> 1336
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1336
 attattatgg gggattacag cactcacacc aggctcacac atttacaaaa agatttgcgt 60
 ctagcttttg gtatggccga ggacctaac ttacctatgc ctgtcacagc gactgctaatt 120
 gaagtgttga aacatgcaaa acgcttgagg tttggggaag atgatgtatc agccttgtat 180
 ttcagagcac gtttttaaat ataaatttat atattggttt ataatatata aaattttaga 240
 ctaatttata tatttccaca acagaagcat ataatttaga aatttatttg tttataatta 300
 ttgactaagc taaaattttg tacttttggg aaattatttc tattaggaga atgtagtta 360
 gttcacgtgt tggataattt gtgtttttaa tgttttacat gtaggtgcaa tgacatgtat 420
 tgaagaatag taatttaaat ttctgtcata attttacaat aagtaaattg tagttattga 480
 tagatgctat gttgcatact atattggagt nactcatttt atttagttac aaaaatttac 540
 cgtatgaatt 550

<210> 1337
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1337
 cgctaaggac cccaggaccg gccctgcatg tgtgtatata tatagatata tatatatata 60
 tatatatata tatatataat aggggtgatg ttttcgaatt ttcttgctca caggagctca 120
 ggtgcttcog gattgataaa ggacaattct ctgaaagttt tagctctctt aatgggaccg 180
 gccgtggtoc cgtggtaaga acgtgggcta gcaaatccta gtcccggtt cgaatccaac 240
 ctcggtcggt tcggtatcaa aacagcttga taccaaattt tcaactgaaa tcatagattt 300
 caaatatgat ttcaagtga aatggccttt cgtgggcaaa gctgtagtgg caacacgcca 360
 cttggaagta aagaggtact aagatggtat cgctttgaaa tcaaaaagga agtcgaattt 420
 gtatctctat acaacagaaa aatgtaaaag ctctgacatc gtgcaccatg attgagtga 480
 tttcaactca cccacggcct gccttgagga atattcgtaa agaaaatgta taacagtaaa 540

550

<211> 549

<212> DNA

<213> Ctenocephalides felis

catcaagcaa	gttgaactca	ataaatagga	aataaattct	ttctttgttt	ttgattaaat	60
agtgccttacg	aggatataag	gataatttca	agcagatatt	ttgtgtgaaa	gttgtgcctt	120
tcaaattcaa	gaacatttta	gtaataaatt	aaactaataa	aaaagttgct	aatatctact	180
tcggtttttac	tgcaattttct	tggatgctac	aaaatgaatt	ctaaaatatt	gtgttttcatt	240
atatttttcca	cctttttttct	ggctaaaaagt	caacaaataa	attactacgg	caactcaaga	300
ctaataaatc	ctggcccata	caattaccag	tatcctcctt	taccaccaag	gttgccgcca	360
attaattgtg	aaccagtata	tgccacagtt	gattttctcat	acttaagatt	catgctggat	420
aaacttggtt	caaagtagtt	cctaaggata	tctgtaatcc	tcaaaacttc	ggncaattgt	480
gcaagcttcc	anaggcggtt	tgattcagga	agtgcctaatg	tagtgaagac	gacagatagg	540
tttctggga						549

<211> 413

<212> DNA

<213> Ctenocephalides felis

caatgattga	ctgctatctg	atactagtga	actaaaatat	gttcaagtgc	ttattctata	60
aactatcaat	ttattcaaag	aaaaatcact	ttgaacataa	attgcaactt	attgtgcgaa	120
tcattggtga	tatattgttt	tccaggcatt	aataactatt	tgattaaata	aataattaga	180
aatgttatga	attgtaattt	gctctttact	attattattt	gtaaatttgt	gatgcattta	240
aaaattttaa	aatattcatt	tgttgaataa	tatttgaaat	gtttttatgtt	ggaccattgc	300
aaagtgagca	aactcaaaaa	tgtattaatt	tttttttttt	gtatatgtac	tgccaataga	360
aacaattttt	tattttaaata	aaggcacctt	gaattaaaaa	aaaaaaaaaa	aaa	413

<211> 549

<212> DNA

<213> Ctenocephalides felis

attatttttaa	gatgatatga	tgctataatg	gtggaatcca	aaattaatat	ttggaatgat	60
atTTTgagag	ttttcattaa	ttgtgtgatg	tagaggTgaa	aagtataaaa	aaggcatgta	120
ttaatcaatg	aagcatatTT	aatttttaaca	attcattttg	ccaaatatga	cttttaatta	180
aaattttatat	gattaatatT	atTTTaaaaa	tcaataacaat	ttcaactgct	tattcagatt	240
tacatgcaat	atgtttcatt	taatttttatt	taatataatta	atagtccagt	tgaatcaatg	300
ggaaggcaaa	tactacatca	tgtaattgtt	gaatactctc	ctatgtactt	ttagaatgat	360

atggattgaa cgaatgtatg aatgagagtt aaaacaatca tattataaaa ccaattttaa 420
tcaaaacagt catgaacctc atattatgcg aaaaactgcc aaaagggttt ttttaagttgt 480
tgagactggc cttgtgacat ttcaaaatga tatttgagta taattttata ttatgagtct 540
tccaaaatt 549

<210> 1341

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1341

cgaaaccaac tgaagacgtc acaaactggt caataaaagc ttattaattt ctcgataaat 60
gctattttat caagcgtttc cttgttaa atcaaaattat agtgattatg gatcgatttc 120
ctaaatctct tgaaaatgca attatcgagc cgaaaaggcg ctttgaagaa caaagtgcct 180
tgacgtcaga gttaggacca gcaatatttg acaccctgta tgctgctcca tttgctctac 240
caagagcata tgtaacaggt ccatgtttta gctctgacga aagttcaa acatgtagaa 300
cttctgaatc agcagttggt gctgtcagtc accatacacc gaatgcatta acatcatttt 360
taaagatgac ttattatatg ggtcacaaaa aatcaaggaa atgttatagt attcaatcat 420
tttcaattcg atgactttga aaatcgcgat ggacacatga agatgtagaa gaattgaaaa 480
tcttttgga taaggtagga tcaagngaag ttatgatgac ttacagggtc caatactgna 540
gtgtcatng 549

<210> 1342

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1342

aattaatggt cctttcgatc taattaattt taaaaaatta aggatagaaa ccaacctggc 60
ttaaacgggt ttgaactcag atcatgtaag aattaatggt cgaacagacc aaatttttaa 120
acttctgcat tttaaaatta tcttaatcca acatcgaggt cgcaatctat tttgtcgata 180
tggtctctta aaaataatta cgctgttatc ccttaagtaa cttaatcttt taatcataat 240
ttatggatca attattcaat tatttatggt ttaataaaaa aaaagtttta taaattttcc 300
tatcacccca ataaaatata ttaataataa taaattta atattcttta aaattaatct 360
atatttatat ataaaacttt aaagggtctt ctgccttta ataatttta cgctttttta 420
cataaaaatt aaattctata caattttatt aagacagtaa tatttcattc aatcattcat 480
tccagctttc aattaataaaa ctatgnttat gctcctttga cagcaaatac tgcggctttt 540
aatctcatg 549

<210> 1343

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1343

aataaaactta ataacagacg tttattcaaa gattaaaaatg cgtataacta atttacaatt 60
aatgatgtgt ttgatcaatt aaattaaaat tcttgggcct ttgcagatta ttagcctatg 120
aaaaataact tttgatagtg acgtatactg cacaaataac tctaaatttc ttgtaaatat 180
tcttgacaag atggaaatgg aaacagatgc taaaaaggac aataaaaaaca tggctcatgt 240
tatgctaaat gaagtcactg atatgctaga agatgatttg cagccgatcg aacaatatga 300
ttacattgcc ttagatgaat tgcaaccaat ggaacaaggt cttgaacaat atcaagaaac 360
aatggaaagt gaagaaaatc aaagtgaaga acagttgcaa cagcaggaac ctgaagttga 420
agaagtttag tgccagaaat agaggaaaaa ccaattttgt caaactgtcc tctgtagaac 480
aatagctcca acctgagtct caaattaatt ggggggctca ggcagccaat tgtttatcaa 540
ggcctattc 549

<210> 1344

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1344

atcacataga tcaataggaa tttatccata tcttagagtt ttgaaggat ctgattatgc 60
tgacattggt ctaagagaag ctgtagaat tgccgaaggc tctgaaactt acagtccaac 120
agtaaatcaa ttatatagag atttaggc atagagtacaa tccaggtatc atattgaagt 180
caaaacaaaca aatggtgttc tggaaaaagt aaatgaaata tatgatcaat attgtttaca 240
aataagtga acttataaaa aactgcaaga tattaattat ttatctgaag agctggattc 300
attagataag ttaagtgtt ttaacacaag gcagaaatgg caactgctgg ttcattcaaga 360
aaatcatgga gcaagcacag atttagaaga agtaaatgct cttattcagt gtgctagctg 420
tggaaaattt tgtacaatat attgatgctg gatttaaaaa tagatgtaaa ttctatgaag 480
atgatagtaa acaaaagaan tgcttcngat tttacactta ttagaaatca aggaaattgt 540
aaagaagag 549

<210> 1345

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1345

cagcgatcag atttaccaga cacatctcat tggcaaagtt caatttccaa agatgaagct 60
gcntttgaaa tagactactg caatcctcaa tcaagcaatc aacattcgaa gncaactaaa 120
gataataaca atgacggtac tactgntcca gacgaagatt ttttttcgct cattatgaaa 180
atacaaagtg gaaggatgga tgaccagcga gcaagtataa atataaaacg agtaatatag 240
aactctactt taataattgt aataatattg tatatggatt attagattac ttttaatact 300
agaatatttc caatttttta atatcatttt ttgtggatta catacataga atagtctggc 360
tatcgattgg tactttgact atgaattgtt gtaccttga accgcaacaa tttctaatat 420
aaaatgagta gaaggtttat tagcgacata atagtgcacat tgctataata tagcatttaa 480
atcaaacaaa ttaaaaatgt gatttitatta ataggacta tcataaagtc acaaaagccc 540
ttccggtac 549

[illegible]

```
<210> 1347
<211> 549
<212> DNA
<213> Ctenocephalides felis
```

```
<210> 1348
<211> 377
<212> DNA
<213> Ctenocephalides felis
```

493

<210> 1349

<211> 349

<212> DNA

<213> Ctenocephalides felis

<400> 1349

cattcggttt tcacaaataa tacaaaaacc agattattaa aatgattgga gtccgcgcca 60
tcacaaagtc gtccccagtg gtcagaactc ttttgcaaca gaccaggaac ttcaatgatg 120
cttatccagt agtatcaggg cccccaagga ctaagatttc tactgctgag aaaattgtcc 180
atggagccgt catcacagtc ggttgcttgg ccatccccc ttgggtgctc ctccatttgc 240
aagaatacaa aggagaacaa taaacaatga aaattcttag taaatgtgtg ataagtgtaa 300
atttaactaa atacaaagga ataaagttaa aaaaaaaaa aaaaaaaaaa 349

<210> 1350

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1350

cttcaaacct ttaatgtttt gaaacacaaa ctgttcataa tcaattgtag ttttgtgata 60
aaactcaata tgatcgata aacctgtgta cctagaaaaa acagaggagc agggagggag 120
tggacatttt attctggatt tccttgatgg tgtacctata aaattttcct tagtactgat 180
tggggaactg ggaatgggag gcgtgtgaat ttgaacttta gtagaggaag tacaaggatg 240
tggcgataaa cttacgtggg aatgtttgtg aagacgatct gatatggaag gagcagaggt 300
aaaagatgag caagcagaaa gtggatatct tagtttctct tttgttgatg gtgtacctgt 360
aaaattttcc ttagtactga ttggggaact ggggaatggga ggcgtgtgaa tttgaacttt 420
agtagaggaa gtcaaggatg tggcgataaa cttacgtggg aatgttgtga agacgatctg 480
tatggaagga gcagagtaaa agatagcagc agaagtggat atctagttct ctttgtgtgn 540
gtcctgtaa 549

<210> 1351

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1351

atatgaagaa aaatcctaata aatccagtat taggatgcaa aacaagaaca catttatcga 60
agactgcoaa agtatttggg gatgaacagt cagattcttt aaatttttaa tcattgcttt 120
ctagctgtcc tgaatttgca tctaaaccca agctgcaaa caagcagtac tcacaaaaag 180
tatttaaaca agtttagatgc aaatctaaaa ccttagaaaa tcaattagaa gttcatcgta 240
gtttaatgtt aaaatcaacc gaagtgcata gttcttgctc tcagcaagcc agaatgaatg 300
aaccatgtga tataacaatt gatgaattag catcatattt tgagactttt gttcacatac 360
ccaaaaagat gtcttcgatg gcagaaatga tgtatatatta atgatatttt tttcatattt 420

gtaaattgtt acttataagt tctctatatt tatgtaaatg aattagtgtg atattgataa 480
 agtccattag ttcattgttt gatacatata aatcaaatag atatacatca tctaagctta 540
 ataatagag 549

<210> 1352

<211> 363

<212> DNA

<213> Ctenocephalides felis

<400> 1352

gcngttgtat cagtacctca tgatgaagtt tgcgatttga tggtcggatt tgttgaactt 60
 ttaccaggat acgaggacaa ggtcactgct gaagaactgg aggaatatac caatgaacac 120
 gttcacgacc acgaaaaact ccgaggaggc ctttacatag tgcaggagct gcccgacta 180
 acaaatggca aaaaagataa accaacagtc cgaaaaatgg caaaagaaat gtctcaacag 240
 atctatgaaa aatacgacaa ctcgactaga aaataaaaaga caaacacact ttgttaaaat 300
 agtttgtaat gtagatttat gataaataaa attgataaaa attaaaaaaa aaaaaaaaaa 360
 aaa 363

<210> 1353

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1353

aaaatggctg actccggggg tgaaaaagga attatagctg ataataaagc tggcgccgcc 60
 cctaccggtg atgccttaag acacagtcga cttcatccg ttaataaagg ccgtaggcga 120
 gtcaggccca tgtcgatgga tgctacgccg atcaacgcgc acacgatgca ctggttcgcc 180
 tatctcgcc cggaaccagt cgcgagcag caggcccaat tgtcgccga acaacagggc 240
 cagcctgacg ctgcggcctc tgccgatggc caattgtcgg atggagagaa cgaagatgtt 300
 agacgttcaa cgaacttoga tgccgaaaac aacgacccag gtggtgcttc ggcggccggg 360
 tctcgcgacc gtcccgcgac ggacgagcga ctgcggcacg ttcgcgacag gcagcaggaa 420
 gaacgccagc gtcggctcga ggagctgagg cccaacgctt gccggcagag gttagggaaac 480
 agaagaggaa gagaggagga aacggatcga ggagatcngc tgaggatatg acagcgctct 540
 agtcgaaga 549

<210> 1354

<211> 384

<212> DNA

<213> Ctenocephalides felis

<400> 1354

atattgataa cgattacaga tatctacact ttgtcggaag gttcgcatte aatagtttta 60
 aaaattaaac gatattgctta attagtctag aacctaaaaa atatcataaa caactttaat 120
 ataaattaat gtaatcacat cattatgctt tatagtaaatt attttaaatg ttataaatta 180
 tatattttga aaacatagtt attctatgca aattacgcaa atatgaacaa atttttatca 240

acataatatt atttatgata taatagtaat gtccgaattt aaaatatacg ttctcgtatg 300
 aaaatattat acaaatacaa caatgcctat tcgaagcgaa atatctaatt aagaaattta 360
 tttaaattat aaaactgcc aaaa 384

<210> 1355
 <211> 288
 <212> DNA
 <213> Ctenocephalides felis

<400> 1355
 gttaagcatg acccagagga attgaggaat ttggctggaa agccagatat aaaggttact 60
 aatgcataat aagaacttaa attagtaatg cagatatcaa attcattata ttgttatagg 120
 atacatttga agaactgaag aagagactac attcttggca gcaacaaaca aatgatccct 180
 ggcgttgtgc tccacattct gtgcttatgg acactcctgg tataactgca gaatgtttgc 240
 cactatataa ttgaaattgg aacaaagctt aaaaaaaaa aaaaaaaa 288

<210> 1356
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1356
 acaagtctga gcagggtgct catttatgtt aggtaatata aaatttatta tgatatgtta 60
 atttttaaatt ttataaatcc tattcttttt taaatttatc aatgtataat aatacatttt 120
 tgtaattgct actgaaaatg attaatcttc acttcaattt caattttttac gtgattcggg 180
 agaggaatag ttacagtata aatataatca atggatttca agatatgaat ttagaaaaaa 240
 aatgttttaa ccagccccta gctctcctac cataaattta tttctaatat ataaagatgt 300
 atcagattaa caactcagtc tttccataat tcttccaaga tattataaca gcatgttgcc 360
 atgtctgatt tttttttcat taaaatat taaaaattag ttatctacgc gtgctccatg 420
 cgtcttacac gtccttcttg nagaacaga ttatcattat atatatttat atcataataa 480
 taatcgaatt tatagattta tcgtttttca gaaacttggt cagggtgataa ncagactctg 540
 nctccctat 549

<210> 1357
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1357
 ctctcgcagt atggtccttg gggctttttg ntaataggcg ttttaatttg cgggggtcatg 60
 ctactgattt ggggactttg ggagtgttac tgccgccgac ctcaacagcc tagtccgcct 120
 ctggtagatc cttgtgcctc aatctctcct gataatcatg tggtagcaag taatttagaa 180
 aatattagtc cgctctcta tgatgaattg gacactccac cagcttataa tatcttattt 240
 ccgccggaac aaaaaagtat acctgtagca acaaccagtg accaggggaac gagttctggg 300
 aatattccag tgtaaatgaa gattactatt agttttttatt ttgttttaatt gtgtatcaca 360

aaaaaacgag tttatggatc ttaagtctta ttaattgctg aactaaatga atgagatgcc 420
ctcctgggtgc atctcagtga atgtgaagat gatgaactta aataatgacg cttgcttagg 480
ttcaggactg cttaactgtg attcttctnt cttattcang aagttaaact atcttgaaac 540
aacaagtaa 549

<210> 1358

<211> 497

<212> DNA

<213> Ctenocephalides felis

<400> 1358

gctnatgtca tttatacgct acatttatac gcgctaataa tttacaaaca aattttctgg 60
gtcgttaatg ggacatttaa cagatagcca gtaactgtca aatagtttat ttattaaatt 120
gacatttttt aattattgta tttttaaaaca tgttataaag cacataacct atatgttata 180
gtatttttta tcgcggttaca tttacaatta tgtatactac aaaaatagag aaaaacatgt 240
gctctatttg tgagaagcaa tatgatcgtg attgggaaat tgaggaaatg caaacaata 300
ttgctcttga acctacagaa gaggaattct cgagacgtac aagttcccgg tcaaacaacc 360
aaataagtac tattccacaa aacgaaagca atatgatgat tttagaaatg ttagccaaaa 420
tgagtcatga aataaagcaa atatctcaag aacaaaaaga actttccaaa cttctgaaaa 480
aagaaaagac aaaaaaa 497

<210> 1359

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1359

gaactttatt aaaattcaat agttacaatt taagtcattt acaatacata attattctaa 60
aaattcattt ataaaaataat agggattatt tagtaaataa tttttaacaa tattttttaa 120
ggtgaatctt gttttgcatc tccatccatc aggtagctta ttatagatct tggcaccocaa 180
tgtagttctt agcgatgatt tgagtttgat ttttggacat atcgctgcat ttttattccg 240
cgtattgttg tcgtggacat caacttctcaa taaatgatta gttttatccg catgcaccgc 300
aatagcttgt tgccaaatat aaatgtttgt gacagtcaaa attttgtgtt ttatgaatag 360
cggcctgcaa gactcccgag gtaagactcc ttctattgct ctaaccgctt cttttgtaga 420
tccataactt tagaagtggg gcaactatc cccaagctaa tattccgagg acgagtcact 480
attaagaac gtgactccaa cgcaaaggcg aaaaccgntt naggcatggc ccctccggac 540
catccccta 549

<210> 1360

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1360

cataaaaaata atatatattt caaagccctg ngttatgtaa tgcttataaa attcttaaca 60

attatatgta tatatgtaca tctctttcta actcaaacga ctactaatac tgctctctcg 120
ctctgttacc atagttgtac ggctgtgcag tcacaggtct caaatgagcc cttggaagac 180
cttgagcacc gtaatcaggc tgcggaataa ctggcatcac gcttccatac cgcgtagcag 240
gattatcgta atccgctcgtt tgagtcggcg taggttttct tgcaaactctg gtgtttccta 300
cgactgcagg ttttggcaac actggtggtg gagttccgta tcttggtgaa tttggattgc 360
taactgggta attcaagttg gagccacggc cgtctggtga cttcggggcg agaattggagg 420
gtttaaggga gatggtttga ttgctcattt ggtcgatcgg accagcgtag cattgtgttg 480
taacottgtg gacttgatat atatgcgtca aatgtnccg ataactctgtg anggtagact 540
ctgtttctt 549

<210> 1361

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1361

ctgtgattat ttactatggt tgcgtcgaa ttataaatc ataaaattat ttagttttat 60
agtgaattg aaatattcta aaaatgttga gtaattctga tttcttaaga agaccggata 120
gatctcacat aagatcatca agaagatat actgtgacga acgcgcctct aaacgacgaa 180
aggattcatt ttatgaatct ttatatctc atagaactat actagtagtt gaaaacaaag 240
aagagcctac atgcaaagtt tcaagatgcc gatggtctgg atttgatgat gaattattat 300
cgcattgtat acacaaacac aacgttttct aatcaaata acaaaatata gtcgagtttc 360
agaattggca accaagtgat atctacaaag gagttctact taaatttcgc agtttgctgt 420
tgtggttatt catggaaaat gacggtctaa tattaatgta gtgncagaac gcagctgcca 480
tgtcacgagc tgtggattag gtcaatgtag ctangtcaaa agatgtcaag aatgccagaa 540
tctgtaaat 549

<210> 1362

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1362

atttaaaaca ttocatataa atgtagtttt ttagctattg tttttctgtg ataaattccc 60
aaaaaaggac atgacattat agtttgaaca agotgatttt atttataaaa tataatttat 120
tgtatatgga tgtgtgattg tgtaggtat tgcatgggta aattttgttt ttaaataatct 180
tcaaaacagt ttgtggtaaa atatttaatt taggaaatat tggtatatca tgaatatgcc 240
aactgaagta aatcaaataa aaaggcactt tgtttagata tttaaataatt taaaatgttt 300
gttaaataata tatatttggt atttaaatgg cctgcaatat tactgatatt gcctgttcaa 360
atctctaaat tctagtaata tatgtcacca tcatgtgca tttattcaac gattgtttta 420
tgaagctctt tacagcttcg cttatagtta aaatatattg cctaacatta ttaatgatat 480
tatcacatta gaaatctgtg aaaatattgc tgntaaaatg tatgtgagtt taaattgcaa 540
tatccactc 549

<210> 1363

Table 1. Demographic characteristics of the study population	
Age (years)	65.8 ± 1.2
Gender	Male 50, Female 50
Education (years)	12.5 ± 0.5
Marital status	Married 45, Divorced 5
Occupation	Retired 40, Unemployed 10
Income (USD/month)	1,200 ± 100
Health status	Good 35, Fair 15, Poor 10
Comorbidities	Hypertension 30, Diabetes 20, Arthritis 15, Heart disease 10
Medication use	Yes 30, No 20
Smoking status	Smoker 15, Non-smoker 35
Alcohol consumption	Regular 10, Occasional 15, None 25
Stress level	High 20, Moderate 15, Low 15
Social support	Strong 25, Weak 25
Quality of life (SF-36)	55.0 ± 5.0
Depression score (PHQ-9)	10.0 ± 2.0
Life satisfaction	7.0 ± 1.0
Overall health perception	6.0 ± 1.0
Healthcare utilization	Regular 20, Irregular 10, None 20
Health insurance	Yes 30, No 20
Health literacy	High 20, Low 20
Health beliefs	Positive 20, Negative 20
Health behaviors	Healthy 20, Unhealthy 20
Health outcomes	Improved 20, No change 20, Worsened 10
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20, Low 20
Health equity	High 20, Low 20
Health justice	High 20, Low 20
Health access	High 20, Low 20
Health distribution	High 20, Low 20
Health status	High 20,

ctttgacaca	tctaaaaaatt	attttaattt	acaaaaaaga	acttcataaa	tttaaaagag	60
agttaaataa	aaatttaaaa	aaataacact	atttaaaatg	caatatttta	acatatgtga	120
taaaataaac	aatgttggtt	gagttaaata	tttatacgcc	acatagggtt	taaaataata	180
aataattatt	ttaaaaaata	atttatataa	attactttga	acaaaatcta	gcaataagta	240
aaaatgggtt	cgcctattaa	acaatactat	gcagcctttg	tagccaacat	cgccacaatc	300
tgctacggca	ccacaatagg	ctgggtcaagt	ccagccctgt	cagccctttc	aacatcgaac	360
ccttcaccag	gcaaagacat	catcttccaa	ttaaccgacg	aagaggcctc	ctggataggc	420
ggtttgattt	gcataggagc	cctttttgga	ggcctttgtc	cgcttggttg	gcaggagtca	480
ggggcgaaaa	gttgtggata	tatgacgtcg	nccatcataa	tcagtggctt	tgctctgttg	540
cgaattgtc						549

<400> 1364

ccattcgcgcg	tatttttctta	acaaaacaat	atttatacaa	aatttatgtt	caataaacact	60
gtgtaaacc	ataacttatt	cataactatg	acagcaagta	gaaaaagcaa	gagttgtgct	120
aattatacga	tgaagaaagt	agcagccgat	catggaaagt	tcctaaatag	gatcaccaaa	180
acgctttatt	atgaaaaact	accgaatact	gatcgtttta	gtatacccat	gtcagaattg	240
gcagtggaga	tgttctccga	agcccatcgt	ggccacactc	tgcaaagact	acaaatgaac	300
tcggcttgca	acatatctcg	aaatgcctgt	gtcaaccctt	gcgctctcgt	attggctatg	360
ttatatttgg	acagactacg	tgattgcaac	cctgaatatg	tgcgacaagt	agcccccagt	420
gaactatttc	ttgatcttgg	atggtctcta	gaagtttttg	catgacgatg	gagctgaaga	480
tgaagtattt	ttacacgaat	ggctgctcag	ggggtattca	gtacagctta	aacactagaa	540
aaagattct						549

```
<210> 1365
<211> 549
<212> DNA
<213> Ctenocephalides felis
```

ataaattcat	ataattaaat	ttgtaaaattt	tgaagacatt	tataaaaacca	aagtattttat	60
ttcaatttta	tacttgaaca	ttaattttta	aattgattaa	attataaagt	aaattaagat	120
aagataataa	gtatagagtt	tctgtattaa	atataatagt	ttttatatatt	ttatataata	180
atittatcga	gataaaaaatt	gataaaaggtt	ttttcttttg	atcttaaata	ctatgaatac	240
ctaatacaag	ttatgtatta	tatatattacc	attgaggtaa	attttaagca	gttttgtcat	300
ttataaatatg	ttgaagttga	tttaacaaaa	aattaatcgt	ccttatgtaa	aacaatatat	360
aaaatatattc	tctagaacca	acctcaatga	tttttacag	tatataacaa	aataaatata	420

Parameter	Value
1. α (deg)	10
2. β (deg)	10
3. γ (deg)	10
4. δ (deg)	10
5. ϵ (deg)	10
6. ζ (deg)	10
7. η (deg)	10
8. θ (deg)	10
9. ϕ (deg)	10
10. χ (deg)	10
11. ψ (deg)	10
12. ω (deg)	10
13. ν (deg)	10
14. μ (deg)	10
15. λ (deg)	10
16. κ (deg)	10
17. ι (deg)	10
18. \hbar (deg)	10
19. g (deg)	10
20. f (deg)	10
21. e (deg)	10
22. d (deg)	10
23. c (deg)	10
24. b (deg)	10
25. a (deg)	10
26. z (deg)	10
27. y (deg)	10
28. x (deg)	10
29. w (deg)	10
30. v (deg)	10
31. u (deg)	10
32. t (deg)	10
33. s (deg)	10
34. r (deg)	10
35. q (deg)	10
36. p (deg)	10
37. o (deg)	10
38. n (deg)	10
39. m (deg)	10
40. l (deg)	10
41. k (deg)	10
42. j (deg)	10
43. i (deg)	10
44. h (deg)	10
45. g (deg)	10
46. f (deg)	10
47. e (deg)	10
48. d (deg)	10
49. c (deg)	10
50. b (deg)	10
51. a (deg)	10
52. z (deg)	10
53. y (deg)	10
54. x (deg)	10
55. w (deg)	10
56. v (deg)	10
57. u (deg)	10
58. t (deg)	10
59. s (deg)	10
60. r (deg)	10
61. q (deg)	10
62. p (deg)	10
63. o (deg)	10
64. n (deg)	10
65. m (deg)	10
66. l (deg)	10
67. k (deg)	10
68. j (deg)	10
69. i (deg)	10
70. h (deg)	10
71. g (deg)	10
72. f (deg)	10
73. e (deg)	10
74. d (deg)	10
75. c (deg)	10
76. b (deg)	10
77. a (deg)	10
78. z (deg)	10
79. y (deg)	10
80. x (deg)	10
81. w (deg)	10
82. v (deg)	10
83. u (deg)	10
84. t (deg)	10
85. s (deg)	10
86. r (deg)	10
87. q (deg)	10
88. p (deg)	10
89. o (deg)	10
90. n (deg)	10
91. m (deg)	10
92. l (deg)	10
93. k (deg)	10
94. j (deg)	10
95. i (deg)	10
96. h (deg)	10
97. g (deg)	10
98. f (deg)	10
99. e (deg)	10
100. d (deg)	10
101. c (deg)	10
102. b (deg)	10
103. a (deg)	10
104. z (deg)	10
105. y (deg)	10
106. x (deg)	10
107. w (deg)	10
108. v (deg)	10
109. u (deg)	10
110. t (deg)	10
111. s (deg)	10
112. r (deg)	10
113. q (deg)	10
114. p (deg)	10
115. o (deg)	10
116. n (deg)	10
117. m (deg)	10
118. l (deg)	10
119. k (deg)	10
120. j (deg)	10
121. i (deg)	10
122. h (deg)	10
123. g (deg)	10
124. f (deg)	10
125. e (deg)	10

<211> 549

<212> DNA

<213> Ctenocephalides felis

attttatg	gcg	acattttggg	ttatatgatt	tttaaaccatc	tgaactgtaa	gtcttttttc	60
atatagattt	attaaaaaga	atattttaaa	aattgaattc	ttcctaaact	attgctaagg	120	
aataaaaaaa	acatcgtcat	acattttatat	acttagctaa	ttactgtaaa	attgtaagaa	180	
ttcatttttat	accttaatga	ttaaccatat	tccaattaaa	acacttagaa	gacattaaaa	240	
aaatcaaaaag	cactaaaaac	tgttatggaa	aatcgaaata	tatgtctttg	ctcttcagag	300	
caccggttaa	acaacaatca	attcattttt	ttttaaagat	tattcatata	ttttgggtgt	360	
caatgatctt	attagtttaa	atattttttgc	atctgtagaa	ttaactgcag	tagtattttg	420	
caatgcattt	tcaaagttta	taatgogttt	tgaattggaa	atgattgnca	ttaaggtgna	480	
ggtgaatctt	catgtataat	attaaataag	tatctaaatg	tttttttggt	tattatcaat	540	
agttttgggn						549	

<211> 371

<212> DNA

<213> Ctenocephalides felis

ggtatgaatc	aatggcatca	cctcaaagtg	aaacttctat	tacaagcagt	gaaaattatt	60
gggatgatag	actttatgaa	ttgtttccag	atttgaatt	ctaacagttt	aaatatttac	120
ttaatatgaa	atcattccta	tttttatatt	gatattttta	ttatgaataa	gttcataatg	180
gaagtaccaa	ttgtttaaga	atgctatgcc	atcattcgcc	taatattagt	aatatatgaa	240
atcaaattta	attatgacaa	ataatatata	atgtttagca	tgtcatattt	atttaaagta	300
ttttgtatat	tattattaca	aattaaaaat	agcttatcaa	ataaaatata	tataaaaaaa	360
aaaaaaaaaa	a					371

<211> 549

<212> DNA

<213> Ctenocephalides felis

gtcactggtt	actggtcact	ggtcattaac	ggcgacacgc	acgctcggtta	atttacaatt	60
gtcctgaatt	tgattttttt	atttggcggg	tccatgagtg	attaattcta	ttaaattagt	120
ttgtgtatac	ataatatgtg	tttgtaaatgt	acattggatt	ctgattttta	cacgtgcttg	180
aaccagtatc	atccgagatg	ttgacaataa	ccagtactta	gaattatcag	tgccattaaa	240

gattcgtttg tgcagaaata gacggaaaaa gtaattttta tattgttagt gatttttttg 300
 taacttattt gacaatgaag agcacaattg gagggttg tgacattcaa gttgtggaac 360
 ctaaattctt ttcttaccg gtaccacaag aacctttaag ggagcctta ccatcagaca 420
 atggttcgtt ttatagtcgg caaggtccca aagtgaggcg ctcacggatt gccgaagacc 480
 ctgtggatat acagtcaaag acatcaagat gccgctcgct ggggttcagga aagggataaa 540
 gaaattttac 549

<210> 1369

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1369

aacgcgctaa caagcgatca cgaacccaat cactaatagt acgatcagta agtgaatcac 60
 ttacttagtg atataaatgg tcaccgatta aacgatttac cggtaaagtg ttcgtgtgag 120
 ttattaaagt gtcggataac aaaatcacag gacgaagcaa gatgaatttg tgcggtgccac 180
 tcttaaattt attgatcctg gcgctggtt tgatagcgca atgtcatgct tcgaaaattc 240
 cggagggaat gcctttaatt cttccaaaag atgccacacc ttcaccctta ttgagagatc 300
 caccacacc acccctgctt ctcccaaggg atgcgactac tccaccaccg ccaccactgg 360
 tctttccaga agatgtcaaa aactacaaca tcgtaccaaa taatgcaacg atcttggcaa 420
 ctttgacgca taaagacgat accaatcagg aaagcgctga ggataataat caagaaagcg 480
 atgatttaaa taagacgccc ggtcagaggn cctgcaagga agtgatatagc acagaagtac 540
 agagaggtt 549

<210> 1370

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1370

gaagaaccag ggatattaca ccatcataa taaattatat tgcgatatc acgccaagct 60
 cggtgctcgc caaaatccac cagctggtac cgaaggatgc attccattca ccgtgccacc 120
 cggcggaata attccggtga gcgctatctc cgcagctctg gctgccact cgtctcatcc 180
 acttaattga ggtatggcac cacctaagga ccaagcacc tctaccccg gatatgcacc 240
 agtttcagca ccaacatgca ccaatctgtg tgttcaagt tctccttcgg ccgtcaatga 300
 tactaaccag cctaaccagg ttacatacga atccaacct ctagtacaga ttgctcccaa 360
 cgatccca tataactatg acgaaaactt agagaaacaa cggaaattga attcaccaaa 420
 aagttcact gtgaactatg tgaaaattac tccgtataat aacaaccatg aaactagaaa 480
 ttcacctacc tcgattgagc acacacatct ctaaatacga aactaatcat cccgaatgga 540
 ctgtattaa 549

<210> 1371

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1371

```

caaacttatt gttaacataa accttaccac ttttaogacc tgttcaacac ctccaatctg 60
aaagtaaatgt cgatttaact cgggtcgtat aacacggttg gtatgacggt ggcagagaca 120
gaaattgtgc aatcagaaaag ataattcggg agaaaaaata tatttatata tagatttgaa 180
actgtcctga ctacgaaatg taacaaatat tatgatttac aagtatagaa acatggagtg 240
cctagcttca ccaagaaatc taagattcaa aataacttta tggacaaccc tatatgtagc 300
agaagtgatt atgtgcaagg agaagaaaac tgtgactaaa aatattgtaa acatttagta 360
ttaacaattg atatttctat tgcaacttta ttggtaaaaa accaaaattt tcactactat 420
taatttacat taatagctac taaataattc aatcactcta aagaatgact gttttcgatc 480
ctactccatt catctataaa ctggtctata tgcaaagtat gagacaaaga agtttactgt 540
ccggtgtcgg                                     550

```

<210> 1372

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1372

```

attttgtttt acattaaatt tttcaaattc gatatgaaat ttttactggc aatttgcgtg 60
ttgtgtgttt tattaaatca agtatctatg tcaaaaatgg tcaactgaaa gtgtaaactg 120
ggaggaaata atccaagtac aaaagagggtg tcaataccat ctgggaagct tactattgaa 180
gatttttgtt ttggaaatca tcaaagttgc aaaatathtt gcaaaagtca atgtggattt 240
ggagggtgggt cttgtggaaa cgggtggttca acacgaccaa atcaaaaaca ctgttattgc 300
gaataacat attccggatg aaagaccaa ttgatataaa ttactaaaat tatgctagat 360
agcaatcata aaattttgaa gttttcaatg atcctaacat gttttgcctc aattttattt 420
aacagcaaat tgtggaaacta cgtccgtac aaatgtcaag aaatctgatg ttacaataga 480
tattataata tgtacattgc tatattatag aatatatact gattgcaagt tgaaaaaaaa 540
aaaaaactgn                                     550

```

<210> 1373

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1373

```

gcaaataatt ctgtgttgat atatcttgtc atattaaaaa caagtgaact tgtgaaaatt 60
tgcaattaat ttgggtgaca ataatgagac ttattatatt tatatcgtgc ttggcatcaa 120
gtacggttta aatgtaccta tagtcaaagg cataataaaa acgctagtggt aatttgcacc 180
aagtgttatt gtataaaact gcaatatgat caatataaaa agtatatgtc cttatttttt 240
tgtttatatt ttactttcat cttatataaa cactatttta tgtatccggg taccaatgag 300
gogctgtgca aagttataca actcaataag tctcaagcc tcggcagagt acgatgagaa 360
tgggogatata tcaaaagatc tggtcgaaaa tctcttacac aggtgtagaa caatgcacaa 420
gtaattttgt actcttgtgn cggaatatga aacggctctc catgtatggg canggtgtgg 480
ggaactcaaa taaanaantn gnttcccaa naatgnntac atgncctttt ntaagcnttt 540
atccaagatt                                     550

```

<210> 1374

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1374

```

taancaaaatt cgtagttttt gaaacaaaac attnttttaa gctttaaacg gattttttat 60
cacctgagga aatcgattta tacaattttt ggaactatgc gctgggtgtc tcaacttttct 120
gattttttta acagtnttgt gtgagatatn aggntcgtag gcctttgaca tatatgccgn 180
acnagatcct cccaatttta ttattggagn nggtcctaatt ttanttacc cttccaaaa 240
atttttaaatt ttggccaaaa atgcnttttct accatggtta aagctcaaatt atccggactt 300
ttttattgcc ttattatng atgaataatt tgcattattt gatttcgatn caaaatctaa 360
atgaaccagt ttaaattcaa atcaaataat tgaaattatt tgtaacaaaa aaaaaattta 420
taatccaaaa aatataaaaa atattttatt ctactcattg aacacaaaat tcacatagaa 480
aatgngcctg tttgctatac aatatagatt aaaatntacg tncgtatttt aataattttt 540
gcatatttat                                     550

```

<210> 1375

<211> 348

<212> DNA

<213> Ctenocephalides felis

<400> 1375

```

caatagaaat taatgaagga atgaaaattt attagtattg tttgacctca tctagtccgt 60
tgactttggg ttaaaaaatat aacgtaattg agttaccagt atgttatatg aagaaaccag 120
ttttttctca ggtagtaag ttatatctt gtttgttttg ttaatcaatc aaacaacttt 180
gttttactga tagttctcta aaactgatta ataataagcc tccccagtga gttgatgtct 240
tcatagtaat aaagtgtct taatactcca agttttattt acaaaaactag ttttttttgt 300
aaattgtgca aataataaat gttactgttc aaaaaaaaaa aaaaaaaaaa 348

```

<210> 1376

<211> 155

<212> DNA

<213> Ctenocephalides felis

<400> 1376

```

gcattgttta aatatttttc gattgtataa aattgaatta taatgccatg tgtaaaaaata 60
taaaagtatt gtatttttaa cattatatatt atagatatat aattgtaaat aaaaataaat 120
tctgacacta ataaaaaaaa aaaaaaaaaa aaaaaa                                     155

```

<210> 1377

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1377

```
ctcnntttca gttgaattct tctattcgct atattgtttt acatacaaat aaatgcaatg 60
tgcgttttgt aacgggatct gtgatacttc atacacacat atgtatgaat gatagaaaat 120
aacattttcca acgttcaagt agatactgta tgtagtttag tgtttgtgac ggaattcctg 180
cagatcggaa attactaata attacctgta cagttggaca ttttcaatca aaaaatgtac 240
tggtttagctg cattattgct tttgtctacg tgctcagtgt ttgoccaaatt taatcgcaac 300
atttcccaat gctgcgaaga aagttgctac agtactgatg accaatccca aaatacaaga 360
tttgcgacta aaactgctta tgaattagt aaaggagtca gaggagatct gacaggggtc 420
cacattgtga acctgtacag ttctgggtgc tgccagacat ggtctagctg caactgccaa 480
gaaatagcag gatgccacat ttggaagttt ggagatgaga tatcgaaatt atcaagacag 540
aaatctggct 550
```

<210> 1378

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1378

```
gctgctggtt aaatattgtc aaggcacttt aatttattgt tatattacat ttgtttttat 60
ttgataagtt aatatttgat tttattatta tttaaatgtg tggcaaatg attagaataa 120
tttattcaaa cctgttcgaa aattctgccg aagtaagatg cctacgtatt cgtcatcatt 180
ccgtcatctt tgctctcatt tgctgtgcaa acaaatttg tgaaagcaga aatgaaatga 240
agtaaggtgt tctggcgcgg ttgttgttta tgttagtttt gaacaaatat taagcgaagt 300
gaaatatcac tgttgatgaa tatcagtcac gttttgatat atagttaatt aataatgatt 360
tactttgata tcaagatatt gatatttaat taatgacact tttattttgc gtgcacgttc 420
tatgtttcaa agtttataca cattttgatt tgcttgatta ttgataaatc atgacgaaaa 480
gaatcggcgg cacttacgtn gacgggcata ctagcaaggg caggaaatca tggaaactgt 540
taggtccttc 550
```

<210> 1379

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1379

```
ganntttcta aacaagatgc ctncaaacct gatggagctg aagcgaaacc ggatctagag 60
gagaaatact gtgaaataaa acttgcacaa ccagaaattc caacttcac tcagaccagc 120
gaactagggtc cagcagtgtg tgtggaaaag actccagaaa tcggggccagc cgtgttggtc 180
aagaagggtg aggctgaaac agagaaaact ctcgagttgg gtcctggtac aatctcgacg 240
gttgccattt gtcctaattt aacagtcgct gaaatttaca atgccccttt attagcagcg 300
agcgaaccag caaaaccaa tgttcaagct gatgtcgctc cagtcgattc caacaagcca 360
tcgactcaac cgacagaact tgtagccgag gaagctaaac ctgcagcgag cgaaccagca 420
aaaccaagtg ttcaagctga tgctgctcca gccgattcca acaagccatc gactcaacca 480
acagaagttg tacggcggaa gccaaacctg tgcacacctg agaggttcta aacaccagt 540
```

tatcgaggca

550

<210> 1380

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1380

gaatttttgg ttatttctaaa taaatatatt taaatacgaa atgctgagca aatagtaata 60
taataacaat ttattttatg ttttattaat aaattacaca atggaacaac taaataacgc 120
tttaaaagcc ataaaagtgc tccgttcgag tgcgggacat gtttttgaga ctttgtcaga 180
aggtttaaga actgaacatg gacaagatac taaagacaca aagtttttga ttgaattaca 240
agaattgctg agtgctgtta atgttaactt gagagaggta gagacttcag tgaatagttt 300
aaatgcgccc cccggggccat tcaatttagc aaacactact tatttaagtc aagagactac 360
acaggagaga caggctttgt ctgcgagctt gtaatagtat agtggccgat aagattcatg 420
agtcnaggnc ctacacagct ttttaagtca aatgctttga aaggcatnnt taatcaagca 480
tgcgaaaggc ggnggaccca actttcttta catgtgcnc cgaaacngg ttctttatac 540
aagttttcag 550

<210> 1381

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1381

aatctgtgga tagttcattt catcgtcttc cagtaaaatc agcaaaggct gaatagtgtc 60
gaagttgctg cttgtaatac tgattttgcc attcaattgg aataggcata ttattaagca 120
aatgaaaaaa gttacaaata attctaattg aactcgaaat attgtgtcta ccatatggaa 180
atcaattgca tattgtagtt attcagcagt tcaatgcatt tttgaaatga catttcgtga 240
aaatttagta ttagtagtat ttcccagtga gtgtctataa aactaaatag ttcgaatatt 300
taaataggac ttctaaagc cttttttaat agcttttatt ccgcatagta tttattaact 360
tatacctcca gatgcaaata ttggtcctta tggtaatcct cttatcctta ttattcctat 420
gtaaatatgt aaaaattggt tataaggaag natgtttatt atccaagttt agatattatc 480
atacctatta tattagactg tttgtggcat gctttganaa ataataatat ggattatcta 540
ttaatctgtc 550

<210> 1382

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1382

catctgggaa attaggcctg gagcaaggat tatctcctaa tgtttgtcca aattcaacat 60
aaaaatatat attttaaaat ataccatgat tatttagtag ctggagagtt tgaggtaaat 120
tttaatgatc agttcattgt ttgaaattag ttttgaacac agacaaaaaa acaagcagtt 180

CCGTTGTTTGG

tgttgatata tttgaattca aaacaaactt gcaattctcg attgcacatt aaattctgtt 240
 tttttttctg atcacggatg aagagattta aaaatttggg ttttgggagt gttacaaaat 300
 tgcgtctgag aatataccgc gcgaattcta agttgtttac tctaatttat ataaattata 360
 ttagaatgct aagaatgaaa gcagtcaatc cctaaatata aaatgagaaa tagtttagtt 420
 ttaaaggcag cgtactcaat ataattataa taaacaaaac aaatttatct caatacaacc 480
 cgtaacgaaa cttttatgtg gatttggata attctttggg atatcggaaa ttaaaattcg 540
 atagatattt 550

<210> 1383

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1383

ggactaggag catgaatatg tatgaataat ccaaatatat tgggttttat ttttttttta 60
 ttgatattaa ttttgactat ttatatattgc cataaagtga acttatcaaa attagtgtca 120
 cgagaaaata atttagaaat catgggggtcc attaaacaac ctggcagggt tatgaatata 180
 caacaaaatg cacagaggac aacaaaagct caaggtgggt ttccacaaag cttatctgga 240
 agtgagactg atgtgtccac atccaatgag aatttatcac atgaagagcg atatgttata 300
 cgtcacactg cacgtgttga accacaaggt caagagacct tgcaaaaccc atcgccaagt 360
 cccactcaaa gccagtgat taatcgattg aaatcaccaa atcaaatgt acaaagaaaa 420
 ttggaatcca acatccgaga ccattgatat gagtagaaaa atggaagtat taccagtcca 480
 ataaacatga ttcaaattat cgaaataaag agctccatgc cagaatcatt gcatatcaga 540
 atcgagaatn 550

<210> 1384

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1384

aaaactggaa cacaagcaat tatttcttaa gattaaattg attgggttca catgcaacat 60
 tttaaatact cgaaacatcg atatattctat tgttgcaaata taaataactgc gaacgatgtt 120
 gttctctttt cattattttg gttattgtca taacaacata agaataaacc ttttacttaa 180
 ttgaacagga atggaaagta tgaaaccgtg gttttaataa aagtaagatt ataatttaata 240
 gattagaacc acttttgatt aaatatcagt aaatgtaaaa gcctcgtata aaacgatgat 300
 atgataacag ataaggccaa tatagtgtt aaagtcaatc ttagacagat gaaaagttaa 360
 attaatgtt tattctaaaa ttaaaattat tattcaatac tatttaataa aatagatact 420
 cataatacaa atattaaaca taaaataatt cttgtaatac tgagtataat gaatacttaa 480
 tataaatggg ttattaataa ctaatatcat tatataatta tatataattg gattcgagt 540
 aaacncatac 550

<210> 1385

<211> 550

<212> DNA

gcatcgtatt

550

<210> 1388

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1388

ganttgnatt catgtttact ttcccatctg anncagaata tcagattggt gttttaaagt 60
taaatttttta acgtattcta ttaaaagatg caaagaaata tttccttaac tatattgaaa 120
acaaaacaca attatatttg tatgtgaatt atctctgctt agttaataat taaatttagg 180
tatagacacc actaggtata aaaaaagctc aagatttttg tttctagtac attttacttc 240
aattttctcat atttgctcca ttccataaaa tcgtatgtct tcaacgtaaa atttcatcag 300
atgcgaaaca ttttcaacaa gaacaaaagt tactattcag tttctcggtc ttaatttaat 360
aagccatttt ctatgcactg acttccaatt ttccatgttt ttatattata atttgtatct 420
atttttttga acaagtttcg ttcaaaactaa atcagctcgt agtttttcgc aataatgccc 480
aataatttaa actttcgagg ttgtgcttat gggtttgaca ctagacaatt ctttttgagt 540
cc 542

<210> 1389

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1389

gccgtatgca cgtcaggctg gtaggcagga ataaaaacat aaacactggc aaattgaaac 60
gtacatttgc tacatttgc attatgtaat cgagccagtg cgatcgcacg gccgtacggg 120
tctgcagcat tcacgatcag tcattgatga ggtgtcgtat tgtgttttgc tgtaatatta 180
gttatatatg cgaagcggtc ttacgccgc cgatcatgatt attgcgaagt gatttcgctg 240
agtgtaccgc cgccgtacgc acggccgcgg gccgggtgtg ctctggacac gctaagtgcg 300
ccgatcatct ccgccggtta cctggttaata gtaataacaa tttttatgca gaactcgata 360
acgaatcgaa gtgggttatt aagtgattta ttagtgtgtg cagtgtttta attgaaaaat 420
tgcagttttc ttatggtaaa gtgcagtttt aatgttaatg tgtgttcaat ctgtgggtaa 480
attatggtac cggtaactgc tctattcatt tatataaaca ttttaataca agcctaagac 540
gn 542

<210> 1390

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1390

actctattag cgatactatt ataagtataa aaagttacaa aactttgaaa acgaaataga 60
tttttttatg ttogttatgg atatatccaa tgtcacagca catgtaaaaa ttacacacga 120
caatgtaatg ataataattt atcttaattt gaaaagatat tgatttatga atatgaggaa 180

gctgtcacaa gcagtaaatac gogttgtcta atactaaaat atattatatc acttttatatt 240
 aaatttcatt ctcatttctt ataatcccta aatgttttta tagagactct tcacaactgg 300
 atttggagca gaaacatcag aagtacatat tattaagtct ggtgttccac aaggaagtac 360
 tctaaagcca attttgtact ctgtatacac acaaaatatt taagtaacta ttgaaacttt 420
 tgccgtatat gcatttgtca tgaggattca cgaaagtga tgggtggcga cggcaaatgt 480
 ttaacaataa tatgaattag tacttaaaaa gtagcttata agtagaaaat aaaaanaatg 540
 aa 542

<210> 1391

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1391

gccgactcat gtctcagttt gaggttagaa tttattaagt gaaaacatgg tcccacggtc 60
 gcagtgtttt acttctattt tggcggttgc gccaggtctg ttgccgttcc tgataacagc 120
 ggtttcatat ttogtacttg ctcttccgaa ggatcagccg tctgttctgg cagtgatagt 180
 aaaatgcact cctatttatt gtcttattta ttttgtgttg aaagctggag tatccactaa 240
 taaaaacaaa ttggcatttg cacttgtttt ttcgagtatt ggtgatgctt ttctggtgtg 300
 gaaggagttt tttccacacg gaatggccgc tttcgggtgtg gcgcaggtga tctattttac 360
 tacttttggg ttcaaaccat taaaacctgt ttaggtgct atttgggtact tagtaggaac 420
 tgcttttggt gccctagttt tttcaaacct caaaggcatt tactgtatgg actgccatct 480
 accagttctt ttagttacaa tgctttggag agctccgccg gacacagttg atgataaggc 540
 tg 542

<210> 1392

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1392

cngctatgat gatgaattgt gaaccagctt acagctccct tttgcctgat tatgaagagg 60
 ctgtcaaaca atcccaggat attccaccaa gttatcaagc tgctgttgct agcgtgggt 120
 taattgaaaa agaggctgct gcttcttctg ctgatgcaac tgaggaaacg aataagccag 180
 agactgagcc cgccaagaca cctgaaccgg aaactaccac aaaaagtga ccccataatg 240
 tgtaaagtaa aaaattaatt ttaaatcaac tgaaataaat tgcataaccg aattgaaatt 300
 ttcatctgca tatgcataga tggcaattag ctgacagaca tattttgaaa atataactac 360
 atatatgtat taaacaatat ataagggcat atatataaat atatatatat atatatatat 420
 atatatatat atatatatat atatatagaa tatctgaatt agtttttaggg ggagatatat 480
 atgatgttat atnaaannaa agtgtntcta tatgaanaan ggggggngcg atatttttta 540
 aa 542

<210> 1393

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1393

gantagaatg tattcgtgaa tatcaactat acanaagatt ttgaggttag aaattgtaaa 60
aaaggggttt tgccctatat ttaaataataa aacgatatag ctaattatta gtggaacacg 120
actattgaac aaaatcaaat gcaaaaagta aataataacg atttgtgatg cttgaactgt 180
gattcaaaaat gtgaaatagg aaggttgtaa aacgaacgtg acgtcttggt agtgtgtttc 240
taaaaactgtg tcagtagtgt ttttaagtccg atataaaatg gatgaagagg agaaaaagaa 300
taatattggt acacctaacc ataattcctt aataaatagt accggaaaac acacttctgt 360
aacacataat ggcgcgaaac ataattcacc tatgatcatc aacaatggcg taattatttc 420
gcacaacgat tacggcagta tcgttactgg aaggagatcg cgaaggatta catcaatgga 480
aggatggcct atctttctcaa aacattgtcc tggacttcgg cgagttatca tcattgatga 540
ta 542

<210> 1394

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1394

ctataatttt attattacta actatgccta ttataatcaa gaaccgttta attcaataaa 60
ttaaattata taagtagcgt aaaatatattt tcatttgaaa catttggtgt cgaccaagat 120
atttatgttg attataggta agagaataact gcaatgatga tgggtgcctt ttaatatgct 180
tctttatatt ttgtaataac ttttaacttc ccgtagggtg agttatagtt atcgcaaaaa 240
atataaaacg aatttttttt tatatcttca cgtttcagggt tttctgaaca ttttggccat 300
agataaattg gcacacctta gaaaaaatgg atgagggtgt gtgtatgtat tggatacaat 360
ttagtccacg attttgggcg cacggatcaa ccgatttgaa taattcaaaa acattatggt 420
cttttacata aggagacact tgctgattag ttttttccaa aggcagggtcc agcggtttcg 480
gagatccaga acagaatggt tttaaatatg ccatttgacg gtcgaaaatc agtattgact 540
gt 542

<210> 1395

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1395

ctttattagt caacggcact gtccatccat ngatcatcac tacattttat tctcgtttct 60
cccgttggtg agttgttttt gtttagttat ttttagaatt aagtttgtgc aacttttatt 120
tcaagtgaag aagcagtatt atattatggt tataaatggc attgcatgta tgactcacia 180
aaattaaaga agtgagtgtg gcgattgatg atgaattaga aaacgggtgg aagtattctg 240
aagggtgcaca agatttgagt gattcagtaa ataaatcatc caaaaataag ttgaatgact 300
acatgatggc gtcccaattg aatccagaag ctgcgcaggt tgtaccgggt gaagcgggta 360
gtcctgcacg atcagtatta tttttgagag aaggcttgct tgatgatgta atggctcgaa 420
gtccaagaca atttagtgct gctgaacaag ttcttaatgt accatcggat actgaatttg 480
catcagaaat taaatcanga ccaggagact aagtgc aaat ggttcttttg aaagcgataa 540

<210> 1396
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1396
 cttacttttac ccacacaacc tgcagctcct atattttatgt acaatggaaa cattgatttc 60
 aagcctgata cattactaaa ccaaccacaa gtgatatcct tgcaaaaccc tatagtaaac 120
 aaccaaaca cacttatttt ccatccggtg caaaacaata cgttttatga tatcaaaaca 180
 ttctcacatg ccccgacaag aaatgtacca attgcaaaac agaaacctgg tcgaaaaaca 240
 ctggcagctc gtcagactac aaataatgtg caaccacaaa aaatctttgt gcctaatatg 300
 aatacaatgc aggacaagca acatgtatta ttgcaagcaa agttaatcaa atcggaacaa 360
 catataaaca aaactgttat gtatactact acaccaattg ctgtaatcga tgacaaattg 420
 gctatcaaag atttgtccca taaagaacca aaagtgaag aagtcaaacg cagtgccaca 480
 atgctataga acgcagatcc ggacaagtat caatgataaa atattgactg aaaatatgat 540
 gg 542

<210> 1397
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1397
 gtgcctttgt cgccatatta tttctggtca tngtattttt ggtaggattc gcctatgtga 60
 tgtaccatca gaaaattttg gccaaatcct attttgaaaa agtgcaattt aataaaatga 120
 ggagatcttt gaagatttat gatgataatg gtgatactat cattagtga gagttgggta 180
 caaccctaag gtctgatagg gtgtttcctt gtcatgccga ggatatgaac ttttctgaaa 240
 ggaagagtcc cctatgccta gaatggctgc acagtgcccg tctctatctg gatcgogaag 300
 aagacgttcc cataatatcc tgcacgtcc attccatatc cacatccagt ggttcttccc 360
 aaaattccaa caaccacaa cccacacatt ccactttgaa atgctatgac gtctcctggg 420
 ttgcaatttc gccctaccat taccgactg actgttacca gtggactggg cctgccattg 480
 cttgcaaattg atacaagagc ttcaaaccat ttattactgg gaaaaactgg ggaaatgtct 540
 ga 542

<210> 1398
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1398
 aangtgcaaa atgatgatat cgattttact atttacattt ttgagtgtat ttcatttagg 60
 atcatcccta caatgttacc aatgcgacct ggcaaataac ccggcctgca cggcgtctct 120
 aaattccact aaagacattg cagccgtaga atgcggaaaa cttcctcaac aagttagtga 180

aatgatcgc tccttaatac gatttttgcc accaaatttc gatggacact tgtcaaccac 240
 caggggaagga gtcggatttc aatgcgcaaa aattgttgcc acgaataaca ttcaggggtgg 300
 ttataatatc acgagaattc ttogaacatg cattgtcgat accttaaatt gcgagaaaaat 360
 taatgaagac ttaaaaacaag aaggattttc ttcaatgatg tgcgcaactt gcaacacaaa 420
 tttatgcaat agttctactt ctttaagcat cacaatttta ttaccattta tattattttt 480
 aatcacaaaa gcccgctcta gggaaataat ttgagttaga tgaaaatttt caaagtcttt 540
 ca 542

<210> 1399

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1399

atnaatgtta atgtatttta attaattaca tgtcattaaa atattgaaca gttttagaag 60
 gttgtaataa ataaatcaac tataatttta gtgtgcgcaa tgacatctgt caagttattt 120
 tctaattttc tgtctaaata aatgagaaaa atccaaaatg ttcaaaatgg agggatgcta 180
 tttgtcagga ggggggtatgt aataacagct atctgaatcg tcacatttct catagcattc 240
 tgggtggtata gtgatgggtt ctcgacaggg agcggggcaa ataggataat tatcttcaag 300
 ttctgaatct tcagaagatt gttccttttc tataatttca tcattttaat ttaatttggt 360
 tgacacacaat aaatggttta caaattgaaa actaatgtaa aaaaattatg agcaagtttt 420
 ctgaaaatta aaaataaaag atgacttaat ttagtatcag tgtcatcggg ttatggagta 480
 acatccaatc atgcaaataa atgattaatt atgaccatgc cagagacaga tttcacatga 540
 at 542

<210> 1400

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1400

attaccaagg gagagggggg tccagaaatc cttaaaaaat ttatcatgtg accaatggac 60
 gcccccttag gattaatatg cagtaaaaagt ttttttatcc ttattttatt ttaaaaaaat 120
 gacaatgtat gtggttccac aataaaaaac gtaacgatcc tattttatta cttatttttt 180
 ttgtggaatt ttgtgaaact atttcacaaa atttttgtac gatttatctt cttgctttct 240
 gattgtatac ttttgatctt agttttattc cacaatttaa cagcctcata caaatgagca 300
 tatggacgtg atgtcactat tttatccact taaaaaaaaa tggacctgaa aatagatcga 360
 gttctatatt gttcccattt tatccaaatt gacttcccat caaagtcggg ggtaagtctt 420
 tgggttaaaga tttaatggaa gctttttgta tttttttttc ttgtggaatc gacatttaca 480
 aattgttgac taaattcctc ttaatttctt aaattggaat cagctcataa atcaatgtaa 540
 aa 542

<210> 1401

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1401

```
anttcggttg aattgtagct tcttacttga aatatattat cttgtgtgcc ttactacatt 60
ttgatataca aaacattcga ttcagtgaag atcattccat aaaaaccata atgtatcagt 120
attatcaaat aataaaattt ttaataattt taactaccgc tgattatatt tcattgcttt 180
tttgtactgt gcagcataat ttaataaaat ataagcacct aaagcaagtc atatacagta 240
ctacatatgt tgaagaattt gatgaaagca atcaattttt gatttgtaat tgatttaaatt 300
atattatgtt aattaatttg aatatatgta ttagattata gattgttcat tcgtattgca 360
gaaatacgaa ttgaaaaatt aattatttaa ttaaagatct ataaatttcg tccaaaactt 420
aatcactgat tcaaaatttg tgcagtagtt gcacatatat attttatatg taatttagat 480
gttatttttt gcatattcaa taggatagct tttttacaaa aaatattatg taatcaatat 540
aa
```

<210> 1402

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1402

```
aanaaacgag cccactggct gtctatcaaa aaaaaaaaaa aaaacgagcc caccatcaa 60
aaatttggtt ccgacgccac tgcataagatt ctaactaact aaatacataa aatacaataa 120
gtactactta ctttatatat tattaagttt acttacaaca atattttttt atttattact 180
ttttttatat tcgacttctc agattatata tattattaaa atttattatt cgatgtatta 240
ttacaatcgt gccataaatt aaaaaatatg agtatcgctt gtaaataatat tagttaccag 300
ttagatgtaa tttttgtact ctcaaatttt aatcgaaaacc aaatttttga ttattattaa 360
taattgataa gtagttttta ttaaaatagt tggacgtttg catctcagat aaattatatt 420
aattatttta taagttagtg atgcattgta ataagtcaca cttctataaa ttaattttta 480
atcaaattct tgggtataat ngaaaattta ataagtcac tatatattta tgcttatata 540
ta
```

<210> 1403

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1403

```
atgtcgtcga aatgggcaaa gtgggtatc aaatcagagt tcgttggttg gtgccgtcgc 60
gcttcgactt acttttattt catttattaa acgcacgttc attcattgaa tcggaaaaca 120
tggatatgga gagacagtcg ctccatagtt acactaaaca taacctaaaa tattgggtga 180
taactaaaag ataacgatat tataatgttt cgagtgaat ttttggtata agttctgtgt 240
attaaattaa ataatagttt agaccgaaga tatcacattt gtgtcaaaat gccaaatgct 300
aatgtgacaa acggtgcatt aaaatgaatc tcataacctc tgtgtatatt ttggttctta 360
gcaaaaattt agtgtacgct gatagtggat atgtgtaaat tagacgttac tagaaatttt 420
tgattttaat aatgagtatt ggtaaaatgt gtacgcaaac gagcgtctac tagttggacg 480
tatgtgataa tggctggtgt cggacataga tctagcaacg ctcacaaaag acgtcttaac 540
```

<210> 1404
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1404
 acaacatccc ataataaaaag cattgtacag cctagtggta atgatcatat tgcaggggggt 60
 aatgttgctc cacctagaat gcaagatgtt gtccgtccaa aaagatatc ttgtcaaaga 120
 cctgggtggta ttgtaccaga aacaaacatg caaggccaac cgcagcaaca acaacctgta 180
 tatcaacaga actactatgc aactgaatat actccgctg tagcaaatga acaaaataat 240
 tcacatcaag gacaacatat accacaagca ctaaatggga tgccccaacc aggggggtcag 300
 gttgtacctc ctaatatctc tgtgccaccc ccgcaaacia tgccttatgt accagaacca 360
 gttcctacac aggtcataac cactagtaat caagtgatgc cgcaacaagt tcttgccctc 420
 aatatcctca agttctatgc agtttaattc gggaggaccc tacatggctc aaataatact 480
 tttatccaca atcttttaggt atctgtctc tctaactatgc accccacaca atatctcca 540
 atccctcata 550

<210> 1405
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1405
 cacatatctt tcaacatgga aggacgtgtg tgcggggctc gattaaaaaa aacgtggaaa 60
 ttaattatct cataatggtg ttagtttcga aaggctatat ttatatatgt agacgccagc 120
 ctaccatctt ggttgatggc gatgatctga tattacgata aggaaaaatc tggaccacga 180
 gataactgta accgcgccag ttaactcgtt caggatgtgg tgtaagtact gccttcatat 240
 attcctgata aataatcttc atgatgttta tcgtgatccg agggctgatt gtttgtgaat 300
 gttaactctt tgactgaatt aatgaacacc ctctaattta ttatggaaat ctctacaatc 360
 ttgtaatat ttacatgattg tattacagtt tatgctgtct gagcatagag aagcacctgg 420
 aaccataaat ggcttcttga aaacatgcat cacatctcat gtctacacat gtatcctgca 480
 ttgatgagaa ggggtgtcaa tcacatccat acataatgat gtacatatat cctgcattag 540
 tgaagagaga 550

<210> 1406
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1406
 cnacattgca tggnatatctg tnnctctnng cgggnttntt ggtnnnggtn ngtnngatngg 60
 naggnttgnn ggctcgtnac nagacnctt gnnnncgntc aantagccca ngatnngttt 120
 ctcacannat tgntggngtg tnttctctg cctnaaagac ngatacacat ggatntatgt 180

cgngngnnant ncatgtactg ncggccagnn ttgtaatttg ngacaaggan gntgctnttn 240
 caaacctgan cntgcnattc tncacgcacc atgcaatgcg acancanatg aattgacctg 300
 anccctacna ntgcanaagg ngtnantttct gtctgnaaac gganntgatg gantnttnna 360
 agaatgcgnc ngtaanannn natnctntgn cnganctgga cgtgcncttc tgcttggata 420
 ccaactttta cnagacctcg ccnatatgtc atnaantgag aacccgcttg ccangacata 480
 tcnntntttt ctctgaaaac agaacattta tngtnnaann gctatncctc aggtntaaan 540
 cccatcgang 550

<210> 1407
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1407
 gtcaacagcg aacagcgagt ctcgccgcg gnnctctaca atcattaatg atacgcacgc 60
 acgccacgta actgggcgca gatatcgcaa aaatacataa caggagtaat agtatagtaa 120
 tagtatattc atttgaatag acttgagatt gagacaaata gcgcgcgac tgcaagtcac 180
 tgtgaccaac ctttgacgtt tagcgaattc atcgtgtatg tgttttggaa tcctattatt 240
 gtgtgtgttt gtgaatttcg tgttttatta ccgtgtgaag ttgtattcag gtgctctaac 300
 actaagtgat tttcaacaaa gattttttaa gaaataaatt ttaatcaaaa tcgaatctgc 360
 tacaataatc cggetgaacc agtagatgac cttgacaacg agtttgattc gtagcgatta 420
 acgaacgctg cgggaccttc cgaccaatac tcacggattt attttgatta aatgagattc 480
 tgttataagg tgacgtctag aaatagatgc agatgtgtaa ccttgtttgc gnggcagaga 540
 aactgtgtcg 550

<210> 1408
 <211> 428
 <212> DNA
 <213> Ctenocephalides felis

<400> 1408
 aaaaaactat tttatactgt tacgtaaaac atgtttcaaa gtacagttat agtttgcagt 60
 gcatggtaaa ctacttttgt tcttatttaa tcggatgttt aattaacaga tatccaaaga 120
 tgtaacttca actttccaat ctagtacaaa gaattttttt gaacaaattt atggaatgtt 180
 cggatttcga ttcccaacca ccaccgatg ggattttgca aatcccacca ccaccgccac 240
 cgccagaacc aaaattttat gaattgtgcg aaaaattgga agaagatcgc cgaatatcga 300
 tgtatgctct tgaaagcacc ccaggcttca ccatgtacac agaccactgg tatataatat 360
 tgattgtgat tttagtagta attgtatcga taataattat aatattcctc aaaaaaaaaa 420
 aaaaaaaaaa 428

<210> 1409
 <211> 455
 <212> DNA
 <213> Ctenocephalides felis

<400> 1409

tgaacgtcca gaaccaaatt atgaagattt ctgaaaatct ggcgcgctaa aacaaataac 60
taagggttaga catggaaatt gtgaagtatg tcacaggcac gccgcacggg acacctcaca 120
ttcagccatt cagggatcat acaagtggcg accgtgcgaa ggcgcgagccc tgcgtgaacg 180
cgcgaaacctt ccgccataat ataggtttca gtttaaattt atagtatcat ttcaaattta 240
acttttagaa cagaacaatt ttcaaatact atatctgagt attatctgac caatactgct 300
agatctatta cacttatgca gtcacaaatt agtacataaa agaaaacaat ataagaaaaa 360
aatattattt tcttgcatta ttcaaaagaa gctatgtaaa tattaataaa gcataaatag 420
aaagattcac ataattcaaa aaaaaaaaaa aaaaaa 455

<210> 1410

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1410

gaagcatttc atctgtcgat cataatctag tcnaggtgga aaaatgaaaa tcgttctctt 60
aacaattggc tttttggtcg cggctcgtgc ttcaaacacg atctcattgg atgaaagttt 120
tgagtcaagt tttaatgatt taaaatcact cgagagcaga ggggcattag aaaataaact 180
attagcagct gctgaagatc tgagaaaaac tttaagaaaa ggtggtaatt tgactaatgg 240
cgaagttagt gacccatggt tcottgaaaa tgttgatgct gacattgaac taccaaact 300
tgccaagcta aacggagctc ttgccaaagt aacagttgat ggtttatcta gtttcaatat 360
aaatcacata aaagtgaatg tgctcttcat gaaagctact ttcaatatca cttttgacca 420
tctcatggca aaggtctat acgacattga aggcaagttg gcagatttgg ctaagttgtt 480
ggcaaaggtt cttttgatat catgnacgtg attaaacgtg gtggacatgt caactatggt 540
tgaaagggtta 550

<210> 1411

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1411

gtcgggtcaat tctacttaat cgctgtgcaa ttatattgta acttgtaaatt aatcgttatg 60
ctatagctca gtgtcgtaga gttattttga tatgaataag tcataagttc tatcaagata 120
taaaattatt gcctaataatc aatgatcacc aaacaaatag tttttaattc gttttttatt 180
taatttttaag agaattattat tatgaatatg ttaagattat ataaatagtt atgaacgttt 240
ttcttaagaa atactcaaag acataatata taaaacttc atataaatct gttcttaata 300
taaaacttgt taagagattt tgtcatatct ataaatttta tttacttcga aatactatta 360
aattgtgcat aaaattattt gatatacagt gttcttttta atatccactt ttattatttt 420
aaattcatat agtattttca tattttatgt taataaaata tatttaataca gacactaact 480
cttattttata ataatatgta catttggtct catgatagaa atactgtgat gctaaaaaaa 540
atggtgtcgg 550

<210> 1412

<211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1412
 cgccaacgtc tattttaaatt tttgatatgc aatttgtgtt aaatgcgttg taaagaaaac 60
 tatttataacc tatttactgt tgtctttatt ttgcttcata ttttattttt cggatatccat 120
 aaatatcggt gtttgtgaaa atttgtgtga aaaagtctat taagcatctt caagtttggt 180
 atggctaaac ctcacctgaa gaaagtagcg ttcctgagga cccgctatgt cacagcacta 240
 aaattaagat ttttcttctt tgtgacaata ccagtttggt atttgggtatt tacagcggtta 300
 aaaaaacaat ccgtttcttc tgaagatatt gaattattacc cgcagacacc agaaattact 360
 ggatcgcgga aattgcttgg ctatctttca ccgatgccaa gaattcgagc ctggcagatg 420
 atcatggtca taactgcacg cccgcagcta tcttagattt tccctctgat ggattcacca 480
 gggagcaaag aagacagggc tgggcctggc ccatgccgca tcgatctact gttctggctt 540
 tagcatagtt 550

<210> 1413
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1413
 ggaagttacc agtatggcac tcctacatta tatccacaaa tggctacaac agcaaatgca 60
 catggttcaa caactaatag tggatacccc aagccttctt attctgggtta taatgcaggt 120
 tatgaatcac taagccaaaag ccaagattat acaaaaccca gtggttctta tggccagga 180
 ggaagtgtta gcggtactac agtgggtgct caggtatctg gcaaattcaa cacaactaca 240
 tcggggagtg ttggtccaaa cagtcagggg gctaattgtgc agacaggtgc aaataacaca 300
 gatatagcaa gcgctatgta taataaaact catacagcat taaataaagt taattcttat 360
 gagaagcaaa catttcattc gggcacacca ccaccgttca acatgccagg aagtgggtcc 420
 agtgggtacta cttatggggc tccgcattta tttataccaa caatggcacc tcaccaacaa 480
 gctcatcata atacacagat gctgatcagc ctttgataga ttatgggggc cttcacaagt 540
 agtcacangg 550

<210> 1414
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1414
 gttattctta aaaagctaag tagaaataat ttatctttat cagttcaatt gatttacatg 60
 tgaacatgat taacatatta tcttttatca attttaatgt tcaatgtgat gtttagtgta 120
 aatttttaagt ttttttttta attatgatca tatcttttta ttcctacatg tctttcattt 180
 tagtattgca tataattttt agtaaaaacc ccttttcagt tacattaatg ttttctgttg 240
 catgctacta gagaaagtag ttcattctaa tttaatgaat gttagtaatt gaatgcttgt 300
 ttagtggttag tttttgagat tgacaaaaat aacatctttt ctatctgatc atattctgtg 360
 tattttttata taattttatac taacagcttg cttttaataa ccgtttgaat ttagtttggt 420

attgttgtga tcaaaacgat aatttgcattg tcttcaaaat ttctttgccg gaaatttggg 480
 aaaaagtntt cttattttatg accaattttat gntgagtcta attgggttta ataataattta 540
 attctggaca 550

<210> 1415

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1415

cagagatgaa tacaaatttt taactcaata tgggtgaatc ataattttct aaagttaatc 60
 gaattcgaac gaagtataa gtaacattgt gccaaaatgt caatcttagc cattgatttt 120
 agtggctctgg ggctcgaaa atctgttttt gttgtcatta taatagtagg atgtttttct 180
 attttatggc caaaaatatt tcatcccatg tttatgggat ttccagatca acaaattatg 240
 ccaaagtcta tggacagata cgcagggttg tgcgatgtga tattcagcag cgatatgaac 300
 gctctgatga cagtaactaa tttatgtgcc caagtgttta aatttcaaga tttcaatgaa 360
 acaaagttat tgggctcaaa cgtgaataat agatgtaggg ccgaaatatt atcacgctgc 420
 ggcttgcat attaccgga tttcatccg gaaaagggtg tccagatgtt aaaggagtga 480
 aacgccttct tacgagatng ttcgcttaat ggctcatctt gcctnagtga gttcggaatc 540
 ctccatggct 550

<210> 1416

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1416

attaaaaaaa aatctcaaat cgatcataaa agttttaata ttaatttcag taattaatac 60
 aacttctgga tcagatgcta acaaatatga agccacctgg gagagtgttg atagcagacc 120
 atctcccagt tggatgatg atgcaaaagt tggaatattt ttacattggg gagtttatgc 180
 agtaccaagt tttggcacag aatggttttg gcaaaattgg caaggatcta atgtgtcctc 240
 ctacgtggat tttatgaatc agaactatcg accgggattt acatatcaag attttggtac 300
 agaatttact acggaactgt ttgatccaaa ccaactgggt gagctattcc aagcttctgg 360
 ggctaaatat gttgtgttaa caagcaaaaca tcacgaagga tacacctgtt ggcatcaaag 420
 tactctttca gttggaactc ccaggacgtt ggtgctcata aggatttaag aggtttacta 480
 ccaacgcaat tcgcagcaaa accaactacg tttcgtctct atcactcttg tcgatggtca 540
 cagacttat 549

<210> 1417

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1417

gtgtattcat attaaaaact gctgaatcca cgtgtgtata atgtcagacg cagtgggtggc 60

```

aggaagtggc ggacaacctt attctggaca aatcaagaaa gaattatcgg aaggcattat 120
ataccagacc gcagaaagtc caggatcaac atgctgcaca gcgctgtatt ccgatgtaga 180
agtgataaag atggaaattt cggatcattt tgaagttggt gacccgaaat ctctacagat 240
agcaaatagt ccgggtagtc cagatagaca attctgcagc tcaaccacgg cgtcaattgg 300
ggaaattacg acaaacgatg atattaaaga agacagtcca aggcgtcttt gccttgtttg 360
tggtgatata gcctctggat tccattacgg cgttgccctca tgtgaggcat gcaaagcatt 420
ttttaagaga acaatacagg gtaacataga gtataattgt ccggcagttg gagattgtga 480
aatcaataaa cgaaggcaaa agcatgtcaa gcctgtcgat tcaaaaatgt tagcatttga 540
tgtaaaaga

```

<210> 1418

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1418

```

gccgtcaaaa atggctggag tattatttcg tgtaatttg gctaaaacac aattgggcat 60
aatcagccca gtttttacia ttagacataa cagcgttga ccaccaccac caggcactcc 120
acctccaaa acacgtacta aatttgggtc tcttaaagat gaagacagaa tttttacaaa 180
tctttatgga cgtcacgatt ggagattgaa aggatctttg aaaagaggag attggtataa 240
aactaaagaa atcattctta agggagctga ttggatcata aatgaaatta aaacttcttg 300
actcagaggt cgtggaggtg ctgggtttcc ttcaggtttg aaatgggtct tcatgaacaa 360
accaggagat ggaaggccaa aataccttgt ggtaaatgct gatgaaggag agccaggaac 420
atgtaaagat cgtgaaataa tgcgacatga ccctcataaa ttggtggagg ctgttaattg 480
caggaagagc atggcgctcg actgctcatt acatagagga gaatttatat gaacatcaat 540
ntcagttgc

```

<210> 1419

<211> 406

<212> DNA

<213> Ctenocephalides felis

<400> 1419

```

gttaatttaa aataacaaaa tgaaaggaac attattaata ttatcatgtc ttgtgatcat 60
gataagtgcc gaatatgctg acgtagatgt gtgccagat ttggacgatg gaacttttct 120
tgctgattca aacaattgcc aaaatttctt catttgtgat ggaggccgag cttggaaaat 180
gtattgtcca ggatcacttt tatggaatga tcacgaagga acatgtgatt acgcacaaaa 240
tgtagaatgt taccaaccag aataaaacat tttaatatct gacagcgatt ttctgaaact 300
atatttcata ctactgttat aataaattta tcttcattgc tctcctocta taaatttatt 360
ccgttttaat aaaatcaata taaagacaaa aaaaaaaaaa aaaaaa

```

<210> 1420

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1420

```
agaacagaag tatatatgat gagtatcagt gcaatttaaat aatgagagaa cgttgtttca 60
atattattag taccatatac catataatga attagtagaa aaaaaattgt tgtagtgttt 120
tagtattttc ggacatcaac tcattaaatt cataatgtct tcaggtagac ctataaaatg 180
tgttgtcgtc ggcgacggaa cagtgggaaa gacatgcatg ttaatatcat acacaactga 240
tagtttccca ggagaatatg tccctacagt ttttgacaat tattcagcac ctatggttgt 300
tgatggaatc cctgtttcat tggggctttg ggatacagct ggacaagaag attatgatcg 360
attaaggccg ctgtcttata cccaaactga tgtatttctc atatgtttta gtgttgcaag 420
tccgtcatct tttgaaaatg tcacttaaag tggatcctg aaataaaaca tcaactgcctg 480
atgcacctat aatcttgtgg accaaaatag attaagagac gatagagaaa ccttaagttc 540
tctacagac
```

<210> 1421

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1421

```
ctgataccat cgaagccagt gctgattcat gacttgggtc gtgtttatat acaaactggt 60
cctgatgtta agaggtgcat tcttagatta ttagaggac cagttagaca actcggcatg 120
gaaaatactg aattgatgaa attagttgag gcctgtgcaa agggatctga aacottggtt 180
acaaggtgta tacatatttt gaccgaaaga agtttgcccta gcatggaact agtttctaga 240
gttcgagatc tttatcacac taaagtatct gatgtccgat tcttaatacc agtattaaat 300
ggtcttaata aagacgaggt tatagattct ttgccaaat tcattaaact aaatccagta 360
gttttaaaagg aagtttttaa taagctgctg aataatcaag caggtcctac atcatatcct 420
agtccagtta cacctataga gttgtttag cgtacatata atagacacaa ctagtgcaga 480
tttaaaattc gagtgaaagc aacaagttgt gttagcagag aagnaattac acccagaang 540
atgcagagt
```

<210> 1422

<211> 534

<212> DNA

<213> Ctenocephalides felis

<400> 1422

```
tgangatcgg cttgtgcgcg tacagtggat acaaaattta tcccggccat ggcaaaacca 60
tggtcaaaat tgatggaaag acattcactt tcctcaattc aaaatgtgag gctgctcatt 120
taatgaagag gaaccacagt aaagtaacat ggactgtctt gtacagacgc aagcacaaga 180
aaggtcaaga agaagagttg actaagaaac gtactcgtcg tacacagaaa ttccaacgtg 240
ctatcgtagg agcttctctt aatgacatcc ttgccaaagag gaacatgaaa cccgaagtac 300
gaaaggcaca aagagaccaa gctatcaggg ctgcaaaaga gcagaagaaa tccacgaaag 360
cagcaaaaga ggctgcagct ccacctaaag tgaaagcccc accaaaagct aaggccgcta 420
aagtgaacca gaaagcacco ccagggttgg cggtaaacga taagtgggtg tggagattat 480
tctaattgtat tatatgaaaa ataatttgta aaatgctaaa aaaaaaaaaa aaaa 534
```

<210> 1423
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1423
 tgaaaaacta cgatccccag aaggacaagc gtttcagcgg caccgtaaaa ttgaagcaca 60
 ttccacgacc aaaaatgcaa gtatgtatit tgggagatca acagcattgt gatgaagcta 120
 aggccaacaa tgtcccatgg atggatgccg aagctctgaa aaaacttaac aagaacaaaa 180
 agcttgtgaa gaaactagct aaaaaatatg atgctttctt agcttctgaa tctttaatca 240
 agcagatccc ccgtttgttg ggtccagggt tgaacaaggc aggtaaattc cctgggtctct 300
 tgtctcatca ggaatccatg gtgcagaaga ttgatgaagt taaaggaact atcaaattcc 360
 agatgaagaa ggtgttgtgt ttatctgtag ctgtgggtcat gttgatatgt ctcctgacga 420
 gttggccaaa acgttcactt gtcaattaac ttcttggtgt cacttttgaa gaagcattgc 480
 agaatgtagt gtctctcatg tcaaatccac tatgggcccc caaagatata taatacataa 540
 tgatatgtt 549

<210> 1424
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1424
 aaaattcaca ttttaatacac aattaatgtc tagtttctaa accacaagga atatacttat 60
 aaatatatit atataaatat aaggaactga ataatttttg atatttggtt gtttgggtat 120
 ttatgttgta caattaatat atcctttacc cttaaagtcta catatattat caaccatggg 180
 taaagcagaa gtaggtaccc ccaagtacat agccaacaaa atgaaggcca aaggcctcca 240
 gaagctccga tggtagtgcc aaatgtgtca gaaacaatgc agagatgaaa acggtttcaa 300
 atgccacaca atgtccgaat cccatcaaag acaactttta atctttgctg ataactcaca 360
 catgtaccta gatcaatttt caaaagaatt ctctgcggct tcttagaact tctgagaaga 420
 caatttgga ctaaacgagt ggtgctaata aagtgtatcag gattatatat ctgataggaa 480
 tcatttgcac atgaatgtc aaagtgggtc attgcggggt tgcaagtggg tggggaggaa 540
 ggcatgcgt 549

<210> 1425
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1425
 gcaagttagg gatcttgata ttaacactac agaaagactt aaagggtgta tggatttagt 60
 atttgaaaag gctgttgatg aacctagttt ttctgtagct tatgcatata tgtgtaaaga 120
 gtttagctctt atccaagttc ctgtgacca acaaaacggg caatcttcaa ctgttgaata 180
 cgtcaatttc cgtaaattgc tcttatcccg ttgtcaaaat gaatttgaga aaaatacagt 240
 agatgaaacc gcaagagaag ttaaactgaa agaaattgaa gcgtgtacag accctgagaa 300

Variable	Mean	SD	Min	Max
Age	38.5	12.5	25	65
Gender	0.5	0.5	0	1
Marital status	0.7	0.5	0	1
Education	12.5	2.5	9	16
Income	3500	1500	1000	8000
Health status	0.8	0.4	0	1
Stress level	4.5	1.5	1	7
Life satisfaction	5.5	1.5	1	9
Work-life balance	6.5	1.5	1	9
Family support	7.5	1.5	1	9
Community support	6.5	1.5	1	9
Healthcare access	8.5	1.5	1	9
Quality of life	7.5	1.5	1	9
Overall well-being	6.5	1.5	1	9
Life expectancy	75	5	60	90
Healthcare costs	12000	5000	5000	25000
Health insurance	0.9	0.3	0	1
Physical activity	3.5	1.5	1	7
Dietary habits	4.5	1.5	1	7
Sleep patterns	5.5	1.5	1	7
Substance use	0.5	0.5	0	1
Mental health	6.5	1.5	1	9
Emotional stability	7.5	1.5	1	9
Resilience	8.5	1.5	1	9
Adaptability	7.5	1.5	1	9
Optimism	6.5	1.5	1	9
Gratitude	7.5	1.5	1	9
Forgiveness	6.5	1.5	1	9
Empathy	7.5	1.5	1	9
Compassion	6.5	1.5	1	9
Kindness	7.5	1.5	1	9
Generosity	6.5	1.5	1	9
Humility	7.5	1.5	1	9
Patience	6.5	1.5	1	9
Perseverance	7.5	1.5	1	9
Self-discipline	6.5	1.5	1	9
Self-control	7.5	1.5	1	9
Self-awareness	6.5	1.5	1	9
Self-reflection	7.5	1.5	1	9
Self-improvement	6.5	1.5	1	9
Personal growth	7.5	1.5	1	9
Life purpose	6.5	1.5	1	9
Meaning in life	7.5	1.5	1	9
Existential well-being	6.5	1.5	1	9
Transcendental well-being	7.5	1.5	1	9
Spiritual well-being	6.5	1.5	1	9
Religious well-being	7.5	1.5	1	9
Philosophical well-being	6.5	1.5	1	9
Artistic well-being	7.5	1.5	1	9
Creative well-being	6.5	1.5	1	9
Intellectual well-being	7.5	1.5	1	9
Emotional well-being	6.5	1.5	1	9
Physical well-being	7.5	1.5	1	9
Social well-being	6.5	1.5	1	9
Environmental well-being	7.5	1.5	1	9
Overall well-being	6.5	1.5	1	9

<210> 1429

<212> DNA

<400> 1429

<210> 1430

<212> DNA

<400> 1430

523

<210> 1431
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1431
 gccagtgca cgaggagcat gaggaaccag atccaagaag aactgagcgc ttcgatgcaa 60
 tacttggcca tgggggcgca tttctcaaga gacactgtca acaggccagg atttgctgag 120
 atgttcttca aatcggcaag cgaagagagg gaacatgccca tgaaactcat gtcttacttg 180
 atgatgagag gagaactgac cgagaggctg caggacttga tcagaacacc aactgttcca 240
 atcacgactt gggctgatgg tttgagtgtt ttgaaagatg ctctgaaatt ggaggcttcc 300
 gttaccaaga agattaaaca tgtgatcaaa gcttgcgaga acgataatgg agctaattgat 360
 tatcatttgg ttgactacct gaccgggtgaa ttcttagaag agcaatactc tgggtcaacgt 420
 gacctgccgg aaagatctcc accctgggca agatgatgaa ccaacaaggt gttctcggga 480
 gttcttgttg acaagaaact ctgggttaaa tgaaacatac atcccatcaa atatcacagt 540
 aataaaata 549

<210> 1432
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1432
 gcaattttca gtgataaaaag tgaattttta tttgtaaaatt aaaatgtcgc tgtgcaaccg 60
 agctgctcaa cgcgagcacg tattagccgt aactcgggat tttatttctc agccccgatt 120
 aacatacaaaa actgtctctg gtgtcaatgg acctctgggt attttggatg aagttaaatt 180
 ccccaaattt gcagaaattg tacaactcag actttctgat ggaactttac gttcaggaca 240
 ggttttggaa gtcagcggct ccaaagctgt tgtacaagtt tttgagggtta cctcaggaat 300
 tgacgctaag aacacacttt gtgaattttac tggtgacatt ttgaggactc cagtatcaga 360
 ggatatgtta ggtcgtgtgt tcaacgggac aggaaagcca attgacaaaag gacccccaat 420
 tttggctgaa gatttcttgg catccaaggt caacccatca atccctggtc tcgtatctat 480
 cctgagggaaa tgatccaaac tggatctctg tattgatgtg atgaactcat tgcgtgggac 540
 agaaatccc 549

<210> 1433
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1433
 gaaaaacaaa attatttgat acattttta ctagaatcat ctgtgtggct aaatattatt 60
 tgtgtttcaa tttcgactat ttgacgaaaa tagataatag aaatggcacc taaagcattt 120
 ggtgatgtga aaatgcaagg acaagcatat aaagataaaa gtaaaccggc tgatattcgt 180
 agcagcaata tatgtgctgc gaaagctgtt tctgatgcag tacgtacaag tttgggaccc 240
 aggggtatgg ataagatgat ccaagcctca aacgggtgaag tgacaattac caatgatggt 300

gccacaattt tgaaagaaat gaatgttact catccagcag ctaagatgtt ggttgaattg 360
tctcggggcg aagatattga agctggcgat ggcacaacat cagttgtagt agttgcaggt 420
gctttgctgg aggtgctga aaagttactt cacagaggac ttcaccaac tgcatttctg 480
atgcatttca aagatgtgct ccaaagctgt ggaaattctt acacctgtca caccaattga 540
cttactgtc 549

<210> 1434

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1434

tgtgtattat tcgcacacgt gaaataaatt atatcggtaa acttgtaata tctattttat 60
taactaataa gcgtagtttg tgtaataaca agtaatttct attagtagtc ataagtaatt 120
gaagagaaaa ctattttcca tataagaatt gaaagcataa aatgattctc tccgtgctga 180
aaaaatctcg catcgtgcac ttgtgttttg ccatttcatt cttcacatca ggcctgatca 240
taaacattgc acaattcata ttatacacat gtctcaagcc tttcaacaag aggctttaca 300
gaaaacttgg ttattatttg tgctacacat tttacagtca gatagtgttt ttagctgact 360
ggtggtccaa atctaattctg accttacaca tatcaaagaa agattatgaa caatgtggga 420
aggaacatgg tcttttaatt atgaatcata cgtacgaaac agattgggtat taggatggat 480
gtttacggaa aaaattgggtg tcttggaatt gtaggatatg caaaaagact attcaatata 540
tccgcatta 549

<210> 1435

<211> 509

<212> DNA

<213> Ctenocephalides felis

<400> 1435

ttaatattag aagcaatgac tgagagcaaa cccatgttgg tagagcattg cccattactt 60
gtggaaggtg cacctattcc tccagagcct gcaattgggtc actggagacc tgaggctaca 120
ttttatcaag atggcgcaag aattgaagct ggttttagaa aatattttca ccgagcagat 180
cctgatcaga aggaagacag ttacacaatg attgtatgtc acgccaatgt aattcgttat 240
tttgtgtgca gggctctgca atttctgtct gaagcttggc tgagactttc attaaatcat 300
goatctatta cttggattag tatacagccc agtggtagag taattctacg agtttttggg 360
gaatcaggtc atataccagc aatacaagtt accagtcagt aaaattttta taacataaga 420
taatttcaat ttatttttat tcgttttctt gaaattttata tattttgtat caaattatgt 480
ttatatacct gcaaaaaaaaa aaaaaaaaaa 509

<210> 1436

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1436

<400> 1439

```
gtcaggcgca ctttacttaa ctgaaggtgg agaacatcat gctgttgctt ccatcaaata 60
tcacgaaaag tacagcccaa acacttttga taatgatgtg gcagttttga agttgaaaaa 120
tccattgact ttcaatgcta accagaaacc tgtgccttg gcctcaaagg atacacctgg 180
agacctcaaa tgcaaattct ctggttgggg attagacgca tatccaagtg atgttttacc 240
aatcatttta caaaaaatgg acgttctgac ctacaataat gctgattgcc aaaagttcca 300
taatgctgga cctaaatcta acacaatcta cccaggaatg ttatgcggat tcaacaaact 360
taatgttggg gcttgagggt gtgattctgg tggccattgg tatacgaaaag tgcaaattgg 420
ttggaacaag tcggtgtagt ttcctgggtt tatgaatatt gtgctgtggg tgtgccagat 480
gtctacgttc gcgtatatta ctattggact ggattcacga aaatcgcct gttttgcata 540
aatatataa
```

<210> 1440

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1440

```
gaattggcta gtgaatagtg tttgtgttta ttaataaaaa atatatgatt tatttactat 60
ttacttcaaa atattaaaaat gtttcccagt tcaaggtcta tagtagtgtt aagtaacaag 120
gcatctcggg aatttttgaa acaaaaaactt atacaaaatg ttatcgtgaa caagtactct 180
acaaatatag ctgaggctgt atcogtcaaa gatgctttac catacaacaa gatacctgga 240
ccttcaacat taccaattat tgggtgtagc catcattttg cacctggagg taaatacaaa 300
ggtctcgatt tagcccaact aacagaaaag ctctatgaag aatatggaga tattgttgcc 360
atcagaggat tgccctggtaa acccgatatg gtttccttta taacttcgat catatggaaa 420
aagtatatcg tctgaaggcc ttgcctgata gaccagcttt tgaatcacga gaatattcctt 480
gagagaaaaa agaccagaag tttcaaattg ttatggctaa tcactccaag ggaagaatgg 540
caaaaatcg
```

<210> 1441

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1441

```
attttgacca catacacaat ggttagcagt agtcctgagg agcggaaaat gtttcgtgtt 60
acacaaatgc attatgttat atttgatgaa gcacacatgt tgaaaaacat gaatacacag 120
agatatgaca atttgattaa aataaaagct tcaagacgaa tattgctaac tgggacacct 180
ttgcagaata atttgttaga gttaatgtca cttttatgtt ttgttatgcc ttctttatatt 240
gattgccaaa gggaggattt gaaaagttaa ttccagaaaa attcaaaaac taactcaaca 300
gtgaagaaaag gtgaagatga tgatgattta ccactttttg aacaaacaca aataacacaa 360
gctaaaaaga ttatgaagcc gtttgttctg agaagactaa aaagagatgt tcttaaagat 420
ttgcctaaaa aaactgatta cactgacaag ttccaatgca ctttctcaaa aacttcaata 480
tgagcaatta attcaaacct tttttcagaa coggagaaat catgcaaata aagaaagagt 540
ggaatgcaa
```

<210> 1442
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1442
 gtgggtgcagg atttgtagat ggtatgaatc ttggagataa caccaaggca gcagttattc 60
 gtcttggttt aatggaaatg attcgttttg ttgatgtttt ctatccagga agtaaacitt 120
 ctactttctt tgaatcttgc ggtgtggctg atttagttac tacatgttat ggtggtagaa 180
 atcgtagagt ttctgaagca tttgtgaaaa caggtaaadc attgaaacaa ttagaagacg 240
 aaatgttaaa tgggtcaaaaa ttgcaaggac caataacagc agaagaagtt aattttatgc 300
 tgagaaatcg tggcatgcaa gacaaatttc ctttgttcac tgctgttcac aaaatttgca 360
 caggagatat ggatgttaaa gaatttctta attgtataag gagccaccgc gaacacatgt 420
 aagtgcctgc tttataaaat ataaatcaga tttaaaatgc ttctcagatg gtaatatag 480
 taatgtcttt acatgaacat aagtgaagat tgctagtgtt ttgatatttt gntcttcata 540
 tagtatttg 549

<210> 1443
 <211> 546
 <212> DNA
 <213> Ctenocephalides felis

<400> 1443
 attttgtttt acatttaaatt tttcaaattc gatatgaaat ttttactggc aatttgogtg 60
 ttgtgtgttt tattaatatca agtatctatg tcaaaaatgg tcaactgaaa gtgtaaatcg 120
 ggaggaata atccaagtac aaaagaggtg tcaataccat ctgggaagct tactattgaa 180
 gatttttgta ttggaaatca tcaaagttgc aaaatatttt gcaaaagtca atgtggattt 240
 ggaggtggtg cttgtggaac cgggtggttc acacgaccaa atcaaaaaca ctgttattgc 300
 gaataacat attccggatg aaagaccaa ttgatataaa ttactaaaat tatgctagat 360
 agcaatcata aaattttgaa gttttcaatg atcctaaca gttttgcctc aatttatttt 420
 aacagcaaat tgtggaacta ccgtccgtac aaatgtcaag aaatctgatg ttacaataga 480
 tattataata tgtacattgc tatattatag aatatatact gattgcaagt tgaaaaaaaa 540
 aaaaaa 546

<210> 1444
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1444
 gcatnatgct gaagtgtgga tttatcggtg ttttncttgt agcctccgcc ttgggagagt 60
 tttcgctcga cgaccgcac gtaggcggca ccagtgttaa tatcgagaac ttcggatggc 120
 aagtgtcctt gttcgatcgt atgggacact tctgcggttg ttccatcatt agcgacgaat 180
 gggctctgac agcagcacat tgcgtatttg acctattctc gccaaagcaa tatgcagtgc 240
 gtgtcggaag tagtttacat aacaaaggtg gattnatcca caaaattgcc aaagtatata 300

<400> 1447

```
tcttattcat attaattata agaacattta ttngtatttc ttcaaattct tgattaggag 60
catgaattgg attagaaata aatttattat ctttatccc tatactaaat gataataaaa 120
atttactatc taatgaatct tcattaaaat attttctagt tcaagttttt gcttcaattt 180
tattattatt ttttatttct ttgaattttt ttttataaaa cttttttaga ataatatatt 240
ttaatgaaat ttatttaatt ttattaaatt catccctatt tttaaaaata ggggctgccc 300
catttcactt ttgatttcct agaataatag aaggaataaa ttgaataaat aattttattt 360
taataacatg acaaaaaaatt aaccctataa tttgttaagt tattgnatta atataaatta 420
ttttatttaa ttcattatta agaattataa ttggagctta ggtggattaa ataatcctct 480
tacaaaaatt atacctattc tcaatacact atggctgaat aatattgttt aataaataat 540
gaataatttt 550
```

<210> 1448

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1448

```
atTTTTTaaa gTTTTTTTTt tttgaaatta atgtatttgc acagtgotca aatatataat 60
attgcttcta acatataaaa aatgagtttg aaaagacagc gcgatgataa tcttaatgaa 120
gaacctgata agaagcttat caaccgttca tgtccatact tagatactat caatcgtcac 180
gttttagact ttgattttga aaaattgtgc tcagtctcgc taactagaat taatgtttat 240
gcatgttttag tttgtggaaa atattttcaa ggcagaggaa acaacactca tgcttacacc 300
cattctgtca gogaatctca tcacgtctac cttaatctga caacattgaa attttattgt 360
ttgccagaca attatgagat aattgactct tccttagatg atataaaaatt gtattaaatc 420
cagtgtttca cctgaaagca tagctgcatt agatgtaatg tgaagctatc tagagctatg 480
atggtctatg atatgcccg g aatgggtggtc ttataatatt aagcaatgct atgcatgtat 540
ctgcagcctt 550
```

<210> 1449

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1449

```
gtcagatcaa gaatgtgcca gtcttcccaa ttcaagatgc gatagtggca tttgtgtttg 60
caaattcaac tttgtgcctc atccagaaga cccaatatgt ctagaacgta aacaattggg 120
tgaacactgc aacgtaggcg aacaatgtca cacaaaattc aacttcaatg ctcatgtgt 180
ccgagaagtc tgtgtgtgca gggaagatca ccacgaatcg aggaacagaa cttgcatcca 240
atctaaaggc tataaccaga attgcgttga tgatctcgaa tgtttcatcg gagaagaata 300
cagagacagg atcagatggt tccagaacaa gtgtctttgc aaacctgaat ttccagtcac 360
tgaggacgga aaatgoggat ccggagctcc aggacacaaa gtgtgggtcct cggttatgac 420
attagcagtt atggcatcag tagcaaaaat catccgatgt aaaagtttaa aaatagaatg 480
tccaagaaaa taagaaaaga cttacaaaaa cttacttcga ttacttaaga acatcttttc 540
nagcatagn 550
```


<210> 1450
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1450
 gtgnaacttc atgtactata atattatatt tgtattatat gtattataaa ttcatacatg 60
 cacacacaca catatgtata tatatatata tatatatata tatatatata gttcaaaaat 120
 aatagcagct aattattcaa ccaacatgat aatataactg ttacggattc ttcacaatta 180
 ttcaatattg aataattcag aatatatata tatatatata tatatatata tatatatnca 240
 tgtgtacgaa catgtatatg tgtatatata tatatatata tatatatattn tatatatata 300
 tatgtatatatt cgcacatgtg tntgtacatg tatataggta tagatgtttt ttttgacana 360
 catantgtnt attagtatat atataaaacta tagtataaaa atataaatga gtgggttcatt 420
 tactttntgc acacctgact catngaactt tgcttttctaa gacataaaaat agaataatta 480
 aaattngngc tcatgtattt naacaatata ctatctatgg gggantgtat atgcengctt 540
 atctatttnt 550

<210> 1451
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1451
 gaaatatgca tcggtagaat attttaagtt tttgtgaata ataagttatc gagaatcttc 60
 agaaacaatg ggagcaggca gcacgatatt tagtgcaaga caagtgctgt ggtgtatggt 120
 gttctgogga ttcgccgtta actatatgat aagaattaat ttaaaccatag caatagtgtc 180
 tatggtcagg catcgatctt taattgtggt taacgaaaca attaacgaaa aattgcaatt 240
 agttttggat tctggggcgg aaaaatgtttc ggaaagttca tccagcacc aagcgcctgg 300
 accaagcgag atctatcagg aggaagatgg tttcatctgg gacgaatacc agcaagggtt 360
 aatttttaggg gcatttttct ggctccactg gatcactcaa gtaccaggag gaatttggtt 420
 agaaaatatg gtctaaactg gtgtttggtt tgcgaatttc taggtgctta ttttgctcat 480
 caccctatc gcgtatatga atatcaacac tataatnctg agtaatcagg cattgttgcg 540
 gtttcttggc 550

<210> 1452
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1452
 aattgttgct ctgatcattg ccggagttga gcttctggga gccatatttg ccctgtgtct 60
 tgcaaattoc atccgcaacg aagataggag gtacgcataa gatctacttc aatactgtgt 120
 gtgaatatgt aattogtttt tgcaaaatat ctattattat gcaaaaacaa tcaacaatta 180
 taccttcaaa tttgaaaata ataattcgat gtatgtatac aaaagccaaa ttttactaaa 240
 ggcttctaatt ttaagaaata ttatataatt gagaacattt ttatgaacta tttaaacgtt 300

aggaattatt tggagtgttg tcaaagtctt ttaaagtgtat taatattttac aatttgatta 360
 ttctcaaata acaaatatatt ttaatatattt tgtaagtgtta ttttatatat tatcgaagta 420
 aacacaaaga caaaaaatat atctacacat gtatgtatat atatatatat atatatatat 480
 atatatatat atatatatat atatanacac angnnnacn cacacacata natttctatg 540
 tgtgttnnatg 550

<210> 1453

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1453

atcttttcgag tgccactaag atggttaaaa ttnntaatga accgcgaaac tgggaaagt 60
 atggaatagt tgatgagcaa caacaacctt caacctcctc tgcaaacctc aattgcctaa 120
 atccaactac tacttctact tcagaccgtc ccgcagcgac ggtttccaaa agaaaactgc 180
 cttcatatcg agaaaaaatg ccacgttctc gcacaagatc gcgatccgc agtcgtcggc 240
 ataacaatca tacaatcat cggagggact attctgatga gcgccattct ataagagtga 300
 ggtcttcttc tagaaggagg agacatcata gaagtaggag caggaataga gacagacata 360
 cacgtaggan aaacgagagc ggagatcatc atcgaggtta caggcgcagt tcaggagaaa 420
 ggagctatcg aagacaccac agacatggag atgattcagt cccgcggaac aagtacgcgt 480
 gaaaggcatc aggaaggctg attnagatga taggaggaca totcatgtca aacctgngat 540
 ataattggag 550

<210> 1454

<211> 474

<212> DNA

<213> Ctenocephalides felis

<400> 1454

gtencattgg tgcccttccaa acccatgtgt gtcgaatcct tccaggagtt ccctccattg 60
 ggtcggtttcg ctgtgcggtga catgagacag accggtgccc tcggtgtcat caagtctgtg 120
 aacttcaagg atgcctccgg tggttaaggct accaaggctg ccgaaaaagc caccaaggga 180
 aagaagtagc tagatctacc gatctgttta ctgcagatgt tcaacaactgt aatgaaacac 240
 tacttccatc gcaaagcgtt tcgaagaaaa aaggcctcat tcattccttt actatatgtt 300
 ttttgactca gctttatatt ttatatgact attttataga ataataatta ttttatgttc 360
 tgctctatat taaaatgaat ttatatgaat gtatggatat tatgtgctaa gaaagaactt 420
 gaagagattt gcagctgatg tgtatttatag tatggnataa atggaancca aagt 474

<210> 1455

<211> 347

<212> DNA

<213> Ctenocephalides felis

<400> 1455

gtttngtctc atgcaataat taattaaact tgtttggttag aggtgcaaaa taaaattaaa 60

ccagttgatg tcacatctga aaaagatggt gaggaagcaa tagcattaac taaagaaaaa 240
 tttggtcgtc ttgatgttgc tgtaaactgt gctggtatcg gtgtagcatt taaaacatat 300
 aatttcaata agcagttgcc tcataaatta gaggatttca caaaagtttt aatgggtaat 360
 actgttggaa ccttcaatgt aattcgattg ctgtggattg atgggagtaa atgaacctaa 420
 taaggatggt caaccaggag tgattgtaac acacaagtgt gctgcttatg atggcagatg 480
 ggacaagctc ttattctgcg tccaagggct ttgtggaatg cactgctttt gctaganatt 540
 accaggcaag 550

<210> 1459

<211> 546

<212> DNA

<213> Ctenocephalides felis

<400> 1459

attttaattaa aatgggtaaa tcctaggcaa tattagaata tgatgtactc atgagatggc 60
 aaatcaaaat tttacaagtt cagatgcaa tgaagaaaat acaaataaac ctctaccaga 120
 atttatttgc tcgtgttgtt cacttaaaca accttatgac tataaaggat gtaatcctcc 180
 atttgcaaaa aatatagcta caattgatga atcctatata atgaaagatc ctttttagtcc 240
 tgagaacaaa aatgaaattc ttatatggg agccgattgt agtatttgtc aagaatctgt 300
 atgcgatatca accacttgca gtatatTTTT catgaaaact ctatgcaaga aatgtgcatt 360
 gaaacagaaa aacatgtacc ctgaacgatt taaacaaatt attgacatgt ttttaaataa 420
 atgcttaggt agttgaataa atgttgtatt taaatttata tttaaaatta actgttaaatt 480
 attgngaaaa agaaaatata gaaaataatt gataaaatgt gggatgatatg aaaaaaaaaa 540
 aaaaaa 546

<210> 1460

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1460

gattcagctt tgcatagaat tgtagatgca actgatgcaa ttgttagcac tgcatattcc 60
 cataaaagaa catttattat ggaagtaatg ggacgaaact gcggatattt agctgttgtt 120
 gcaggcttgt gtgttgaagc tgattttata tttgcgcccg aagatcctcc agatgccaac 180
 tggccaagtg ttttatgccc actattaagt caggaacgat tagctggaag aaggcaaaat 240
 attatcatgg tatcagaagg ggcaattgat agaaatggag aacctataac agcagaaaaa 300
 attaaagaag tcattattgc aggtttaaat caggatacaa gaattacagt gcttgccatg 360
 tacagagagg tggaagtcct tctgcttttg atcgattact gggatgtcgc atgggggcag 420
 aagcagtatt agcccttatg gaagctcatg atgagtctga ccttgtgttg tgaccttgcc 480
 cgaaccaaca gtcgtcttca atgatggaat gtgttctcac caaactgtac ttacgcttgg 540
 aaaataaaat 550

<210> 1461

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1461

```
caaactcatc cttttagtaa cgtgtcaaga agcgtggatt cgaagtaatc tacatgacag 60
aaccaattga tgagtatgtt atgcagcaaa tgaaggatta catgggtaaa acttttagttt 120
ctgtcacgaa ggaaggtttg gagttgcctg aagatgaaga tgaaaagaag aagcgtgaag 180
aggataagac taaattcgaa agcctttgca aggttatgaa gaatatcttg gataacaaag 240
tagagaaagt agttgtgagc aaccgattgg tagattcacc ctgttgattt gtaacatcac 300
aatatggctg gacagccaac atggaaagaa tcatgaaggc ccaagctctt cgcgattcct 360
cgaccatggg ttacatggct gcaagaaaca cttagaaatt aaccccgatc attctgtgat 420
tgatacttta agacaaaagg ctgatgctga tccaaaggat aaggccgtaa agatttagtt 480
atcttacttt tcgagacagc tttgctgcat ctggtttact ttagatgaac cccaagtccg 540
ctnaagaatt 550
```

<210> 1462

<211> 312

<212> DNA

<213> Ctenocephalides felis

<400> 1462

```
attgnaactt caagaattgt acgtaaaggc tttgactaat gaggagtgc aagctaaatc 60
accaattcca ccaacgaccc aagtctgcac acttttgaa aagaatcacg gagtatgctc 120
gggagattct ggtggtccat tgcttttgga tggcgagcaa gttggcattg cctcatttgt 180
tatcttcaaa tgtgcaatgg gataccctga ctatttcaca agattgtctc tatatgtaga 240
ttggattgaa caacacatgg attaaaaata ataaaataat aatttaattgt aaaaaaaaaa 300
aaaaaaaaaa aa 312
```

<210> 1463

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1463

```
gtcaaacatc acaaaaatat atagctttat gtgtcacaaa tgattacact tttatcgtaa 60
tgatataata caaaataaat acaatttctt acatgctatt attataattc aatattaaaa 120
catttgactt ataataaac aatgaatttc ttatatttat taatatgctc tctttgtgctg 180
gtagtaaatg cgggtgggga tacattagtt ttattagaca atcttgcaat taaagaaact 240
cattccatat tttttaaaag ctacaagat agaggttatg ttctaacatt caaattggct 300
gatgaagcca atttagtttt atctaagtat ggagaatatt tatacaagca tttaattcta 360
ttttcacctg ctgtggaaga gtttgaggga tcattaagtg tcgaggcaat tcagaattca 420
tagatgaagg tggcaatgtt ttggtagcag gaagtgaatc ctggtgatgc aattcgtgaa 480
tagctctgaa tgcggtttga ggagatgagg aaggacactg tatggacatc ttaatatgat 540
ggtctgataa 550
```

<210> 1464

<211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1464
 gtcgtttttac atgcgccgga cagacatact tcagcgcgct ttaccaacaa tgcgtgcaag 60
 cgcctttatc cgagtgttg ggcacagctg cacctccacc accgccacca ggaccaggac 120
 catcgcaacc ctttgcttgc gtgcggacag gattgttttt ggattacact gataattctt 180
 gcaaatggta ctacgagtgc acattaaacg ctcaaggtgt attcgacgtg gcccgatatg 240
 cttgtgcagc tgagtatat ttcaacagcg ttctgcagca gtgcgtacct gcataccagt 300
 cagactgttt aggtgcaagt gtcacttctt ccccatccat accatcctta ccatccttac 360
 catctttccc aaccttgcca acatcttccc caacagcagg atttcctttt ggccgaaaat 420
 ctcttgatat gcaaacaaaa actggaacta aatgtacaaa aggagaagtt tctaaagacg 480
 attaaattct acatgtccta gtgagtgtgt atatgaaatg ctattgatat acatcaagct 540
 tataaggtat 550

<210> 1465
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1465
 cggttaacgtt ggtttttcgt aacgtattat atatacaagt gtgtggatta attaaatatt 60
 tacaatggca actgaagtgg taaacaacgt gcaagtcacc gagaaggatg tcaaagagga 120
 gttgcccag aaaaaaattg aagaagaagc cccggccaca gagaaatctg aaaaggccga 180
 tgaggctccg gcttcgaaga ccgagcctgc accaccgaag gtgctcgtgc ataaaacaaa 240
 cttcgaaaag gataccgtgt atctttacca attctccaga actcctcttt tgccatcgat 300
 gtgcgcgtac tgcttgaaag tggagacctg gttgcgtttg gcaggaatca aatacgagaa 360
 tgtcgaccac aagatgaaat tccgcagcaa gaaaggacaa ttgcctttcg tcgaattgaa 420
 tgggtgaagaa attgctgcag tgccatcatc atgaaggagt tgtcaaacct acggaaagga 480
 tctggatgct gtttgacacc agacacgoat gtctccatgc tatggatcca tgattgaaaa 540
 ccacttgat 550

<210> 1466
 <211> 546
 <212> DNA
 <213> Ctenocephalides felis

<400> 1466
 tttttttttt tttttttatt tgcattngna tagccggccg attgcattca gttctaaaat 60
 gccgatcaaa agtatcaaag ctcgtaaat tttcgactct aggggcaatc ctaccgtcga 120
 agtcgattta gtgaccgaat taggattatt tagagcagcg gttccttcag gtgcttcac 180
 aggagcttat gaggtccttg aattacgtga taatgataag actcaatata tgggtaaagg 240
 agtatccaaa gcattgcaca atattaatca attgattgcc cccgagttaa ttaaacaatc 300
 ttttgaggtt actcaacagg aagagatcga caaatttatg ttgaaactgg atggtactga 360
 gaacaaatct aaatttgagg ccaatgctat attaggagtt tcattagctg tgtgcaaagc 420

tggtgctgct aaaaaggggtg ttctctgat caacatattg cagatttggc tggaaataaa 480
 aaaaatgngc ttctgtcca ctttcaatgt atcaatggcg gagcatgctg gaataactgt 540
 ttcaga 546

<210> 1467
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1467
 gtaaaataat taatttattg ttaattacat tataaaataa gctaatatgt aactcatcac 60
 aaaaatagca ttttaataat tacaatggcc cacctaaaca agagtttgaa accaataaat 120
 tactccaaca cgtcattcag acaotTTTTT cttgtattat ttttcgtatt ggTTTTcgcc 180
 ctCagtattg ctttattagt tttatttcca tatagtggaa aaagacatga aatctataag 240
 gatataagtt tggaagatgt cataaacggt ccagaacaaa tcattcatga tcaagctccc 300
 tcagcaaate ctgcgaatcc aaaatgcagc cactgggatt gttttaatgt gtatcgctgt 360
 ggcaataaag ggcacaatca aatatctatt tatattttatc caattaaaaa atatcttgat 420
 gctgatgata tacctgcact ggtatcatgt gcaaagaatt tattttattt taaaaactat 480
 aaaagatnca aatttacaca tcaaactctga tgaggctgga tattggtcca agattgtact 540
 taaatcaaac 550

<210> 1468
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1468
 gaggaagng gcaaagatga tgacgaggat anggaagcaa ctgaaaatga cacaacaaaa 60
 gcagtgcctg gaatttcttt tgtcaaattg acatgcgtgc attgctctac aaaatgtgct 120
 acattgaagg agtatgttac ccatttgagg agcaaaatac acaactcata tatgagccgt 180
 ttagctgcac gtcacaaatc tcgattggcc aaaatgcgcg cacaacagag gaatgctcag 240
 cgagagatcg atgaaaagaa tcaggaggac tattatttaa agacaaagt ttgtcctact 300
 tgcaaactta attacaggca actcagagct gaacatcaag cttctgaagc acataacgat 360
 attaagaagt atttgaagcc ttattgtagg acttgtcgta tgactttttc aagtcctatg 420
 cgttatgaag tacatatttg ttcaatgcac acataaaaaca taaagctcat ctggagtatg 480
 taaaacacaa aaaacaagat atgaagaagt tggtagtgat gaagctgaaa gaatggattg 540
 gatatttatg 550

<210> 1469
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1469
 cagaagctca agccagagcc gaagaagtcg aggaaatcag gaggaatac agtgccagaa 60

tccaagaaca agaggagcac atcgagacct tgttggtcaa gatcagcaat ctggagaaac 120
 agaagagcag actgcaaagc gaagttgagg tcctcatcat cgatctggag aaagcaaaca 180
 gogctgcccc cgatttgtag aaacgttgcg agcaattgga acgtgtcaac atcgagatca 240
 aatcacgtct tgaggagacc attcagttgt atgaaggagc ccagagagat ttgagaacca 300
 agcaacagga gttgcagagg gtcaaccacg aattggacaa gaccagggaa cagaaagatc 360
 agttggccag ggaaaacaag aaattgggag aogaattggg agatgctcgc aaccagttgg 420
 ccgaatacaa cagacgtttg cacgaattgg aactcgaatt gagaagactc gagaatgagc 480
 cgaagagttg ctgctgcatc aagaggccga actgtcgcaa ggccaagaca cgttccacgt 540
 tggcnacgat 550

<210> 1470

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1470

gcaantcgca aacgagtttc agagcacagc ggctgogcat ctgttaagct caacggctat 60
 agtttttcag tattataatt tgtattaagt cgaagtaaata aacaaacatg agggaaattg 120
 tgcacattca aaccggacag tgcggaaacc aaattggagc taagttctgg gagatcattt 180
 ctgatgaaca tggaattgac ccaactggag cttatcttgg agatcatgaa cttcaattag 240
 aacgtatcaa tgtttattac aatgaggctt ctggtggaaa atatgttcca cgtgccattc 300
 ttgtggattt ggaacctgga accatggact cctgtcgttc tggaccatac ggtcaaattt 360
 ttaggccaga caattttgtt ttcggacaaa gtgggtgctg taacaactgg gctaaggagc 420
 attatactga aggtgctgaa ctagtgcact ctgtttggat gttgtgcgta aagaagctga 480
 atcttgtgat tgctgcaagg ttccactacc cattcttggg angtggnetg cttgnatggg 540
 acactattga 550

<210> 1471

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1471

ctgtgccaga catccaaaaa ccagctcctg aatttgcagg tactgctgta gttaatggtg 60
 aatttaaaga cattaaactc agccagtaca aaggaaagta cttggtacta ttcttctatc 120
 cattggactt cactttcgtg tgtccaactg aaatcattgc cttctctgac cgcattgatg 180
 aattccgcaa gattggatgt gaagttgtag cagcctcttg tgattctcac tacagccact 240
 tggcttggat taataccgca cgtaaagaag gtggcctggg acaaatgaat atcccacttc 300
 ttgctgataa atccatgaaa attgctcgtg attatggagt tttagaogaa tcatctggag 360
 ttccattcag aggttgtttt atcattgatc ccaaacaaaa tgtagacag gtcactgtta 420
 atgacttacc agtaggcaga tctgtagatg aaaccttgag attggtcagc cttccaatta 480
 ctgatgaaca cggagaagtt tgccactggc tggagacctg tagtaaaact atgaaagcgg 540
 accaaacttc 550

<210> 1472

<211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1472
 cagcaactca tttaatat ttt gtggatcctg atgcgaaaaa tgaaacatgg atattacaca 60
 cacatattgc agcagtagaa cgattaccgt tgagtactac aggatgcccc cttcaaattc 120
 gatgcaaaac attccaatca gtaatat tttc ttataagaaa agaaaacgat agccatgacg 180
 tttataatac tttgttgcaa ttagcccaac ctgtttctat cgatgatctg tattgcttcc 240
 agtacaccat aaataaaaaat gatatgcata agagcgaagg ttggaattat ttttaatttag 300
 aggatgaatt taaaagaatg aatgttccaa atgatgaatg gatttacaca gatttaaatg 360
 aaaattatga gctatgtgat acttatccta attgttgtat gtgcctgcta acagcacaat 420
 aaatatgtta caaggaagt caaaatttct atccaaagga agataccggt ctcacatatt 480
 acacaagaac aagcttcaat atgcagatca gcaacctttc tggttcagtg cacgatgtct 540
 gagatgacaa 550

<210> 1473
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1473
 aaaattttta ttttaattat tatgtgttcc tttatcattg atgcgagaag taaaagt tttc 60
 gaaataaagt taagacggtg gaaaagtcct cgacttcaat tgattgaaat ggatcgaaat 120
 atgcgtatag cggtttggaag agatattcaa gaaaacgaaa gctattattc ggatccatct 180
 aaacctaaac ctctccagg tcctaaggac aatgatacta tagcaattta taaattttta 240
 gatactgaat tttatgctga ggttgaata ggccatcctg taaagtattt caaacttgtg 300
 gttgacactg catgggcaga aacatgggtg gctcgaaac aatgtgggtt aaagtgtgtt 360
 ggatgttgga atcttaataa atatgactct ttggcatcat caacatttca agaaaacggt 420
 aaagaatttt cttttggctc agcaaagaac cataacaggg tcttctcaat agaaagt ttt 480
 atattgccac ataaatgtta aaatcagact ttggggaagt acatgtttgc cttgcaactct 540
 gtttcaaaca 550

<210> 1474
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1474
 cctaccgcc gatttgttct aaagaagaaa catcgcccaa gtcacacttt gtttatatgc 60
 tttgggcaga cttacacaaa aacatccga atacacagga ccatcattag gccccaaaat 120
 ggagaaaaag aatgaaagga cgtttactga agagcaactt agagcccatg aaggagaatt 180
 gaacttgcaa atgggatata acaaaggtgc atcccaatct ggccatggtg gatttggtta 240
 cactaggcat atgtaatttg ctgattttat acgtatttct gaaaatattc ctcacaagtc 300
 tgacgacgat acagattagt agattcgagc acactttgtt caatgttatt ctgatacaga 360
 ctcaaaatta acacaaacta acagaataaa cagcacattc acaaactc ataactaata 420

gatatagaca caacactaat tttaacacaa tocaatacat aatgacatat aaaaataaat 480
 taacatctct cgcattaata cgatacaaaa atttaattac taacaaacat aatttacata 540
 ttgaaatctt 550

<210> 1475

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1475

agctcacaga attcagggct agctttaacc acttcgacaa gaaccgcaca ggacgttttg 60
 cgctgatga gttcaagtca tgcttggtt ccctcggtta ctcgataggc aaggatcgtc 120
 aaggcgattt ggacttccaa aggatttttg cagtagtoga tcccaatgga actggatacg 180
 tccacttoga tgcattctta gatttcatga cccgcgaaag tacagacacc gacactgccg 240
 agcaagtcac cgacagcttc agaactcttg cctccgacaa gccatacatt ctgcccgatg 300
 agttacgcag agaattgcc aagaccagc cgaataactg cattcaacgt atgccacctt 360
 acaagggacc caatgggtga cccgggtgctc tcgattacat gtccttcagc acagccttgt 420
 acggtgaaag cgatttgtaa ggtagaataa attttcataa acatttaagc aaacatttga 480
 caagtacaca taaaggtaaa taatgaagtt atgagagtta cgatcaaaat tagcattgng 540
 ct 542

<210> 1476

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1476

gtttatcggg gtcttgggtc atgggaccag ngnggcatca ttaatcatga atttaaataag 60
 tgtcgttact aatttctcag gtcttgtgac gaggccgatg ttgaaaaagt attccgttcg 120
 gaaagtggcg gtggccggat cgctcctgac cgccacgggt ctcatgatca gcagtcaggc 180
 acgctccctg tggctgattc tgtttggata cagttttttg acaggtctag gtttgggttt 240
 tataatgcct tcggtgttct tggcagtgac ctcttatttt aaggtgctcc gaggccgggc 300
 ggtgggcctg gcagcagccg gtaccggcct gggacaaatg gtaatgcctc atgccgntcg 360
 agcactgttg gacgaatata gtttcanagg agccactctt attatggccg ctatggcttt 420
 acaaggggtg gtaggcgctt ctttattcaa cccgtaaaga atacatgaac cngtcnatga 480
 cgnccgaccg agaaaaaatn ttactngac cngatttacc cctgacgctc agacctgaag 540
 aa 542

<210> 1477

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1477

ctccattctt tcttaggttt cattctttta agctgaccat cccaaaccaa atcaaccaac 60

```
cctccttgtt  tggctatcac  tgctttcaca  cgatttgcaa  agtctattga  actctctttt  120
tcttctctaa  acattggagg  taagtaccaa  acatcacata  caatcgccca  tgaagacatc  180
atcatgtata  aataatgcat  cattgaatac  tttgaactgt  tccaaaaggc  atctccaaac  240
tttggatcat  atttgatggc  tacaggataa  attactcttc  cgacttcaaa  tgagcctttt  300
ttaaactgca  ttaccgatgt  attattgata  catgttcctt  ctggaaatat  taatattggt  360
ggattattag  gatcagagat  atgctgccga  agtctgtagt  gacggcagtt  cgatccttga  420
cttcagagcg  ttcaaaccaa  atgtgagggt  atgccctagc  cagcgccctt  tgcagtatac  480
ctaggaaacc  atcatgtctc  tgccaattag  agaatagcaa  ttatcacaca  tgagaacaag  540
ag                                                    542
```

<210> 1478

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1478

```
cacnaaggca  aaagtttgta  cattttccaaa  gngatggatt  ccaaaccott  tgatcccgtg  60
gaaaatgggc  tcgataaaga  cttcaggcctt  actaaattta  ctgaattagg  aggggtgagg  120
tgtaagggtc  ctcaagatgt  tttaaacaac  ttacttgagg  gactctgoga  tatggagaag  180
gccaaagtcca  gtgatagtaa  ggaagttgga  attggattgg  actgctccgt  tactcctctc  240
gaagaaaact  ggtacctttt  acaaacaaca  gattttttct  atcctttaat  tgaagatcca  300
tattttaatgg  gtogaattgc  ttgtgcaaat  gtggtcagcg  atttgtatgc  aatgggtggt  360
acaaaaatta  caaacatgat  gatgttatta  ggcattagta  ataaaatgac  tccgaaggaa  420
cgagattgtg  ttattccttt  aatgatgaaa  ggatttaaag  atggtgctaa  agaatcagat  480
acaactatcc  aggtggacaa  acagtottga  acccttgtgt  attattgggt  ggtcncacat  540
ca                                                    542
```

<210> 1479

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1479

```
gntatggaaa  aagccgaaaa  gctgggcat  cgcgttcaaa  aatgtgtggt  tgtcgctcat  60
ctgaaacgtg  tcactcctgg  aaccagcgag  gagatcaatg  gagtcgagac  tcctatgaca  120
gatggccgcg  accattggtg  gcatgaggaa  atggacgaag  ttgaaccagc  atgttaccca  180
gaatggatgg  ctgctgagga  tccattgttc  atgctttata  caagcggtc  cactggtaaa  240
ccgaaagggg  ttctacatac  tacagggtgt  tatctattgt  atgctgccac  cacatttaaa  300
atggtttttg  actacaagcc  cgatgacatc  tactggtgca  ctgctgatgt  aggatggatt  360
actggacatt  cgtatgttgt  ctatggacca  ttagctaatt  gcgccacctc  cgttatgttt  420
gaagggacgc  cattttatcc  ggataacgat  agatattggg  cggatttgaa  aaatacaaaag  480
tgaccaggtt  ttacacagca  ccaaccgcat  aagacttgat  gaagttcggg  aagaccagtc  540
aa                                                    542
```

<210> 1480

<211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1480
 ttgagaaaact totcaaaatt gataaaaaag ntgctgtagt aatggccatg gatatgttgt 60
 tagcaggagt tgatactaca tcaaatagta cagcattttt gctgtatttc ctggctacga 120
 atcaaaaatg ccaagataaa ctacgtgaag aaatcagaac aattctgcca aataaggatt 180
 cacatgtaaa taacgaatca tttcaccatt tgccgtattt gagagcttgt atgaaagagt 240
 cgagtagaat attgccaata attggaggca ctggttaggaa agtaccagtc gatattgttt 300
 tatcaggata tcaaatcccg aaggggaccg aggtggttct aagtcattct actacatcaa 360
 tgaaaagcag tcaattccct gaacctgaaa aattcatgcc agaacgatgg ctgagcagcc 420
 aggaatcaga aggatgtcct ttagcaaaaa atgctcatcc attttcgcac atgccttcgg 480
 tttgggcctc gcaactgcgtg ggaaaagatt gcagatttgg aaatggaact ttatatgaag 540
 ta 542

<210> 1481
 <211> 539
 <212> DNA
 <213> Ctenocephalides felis

<400> 1481
 taaaaatttt aatngcttat tcttcagngn ttcataataag aatagtatta ggaggaattt 60
 ttactataaa tatattaggt attgtaggta ggtttatttt aataatttct catggattat 120
 gttcttctgg gatattttgt ctttctaata ttatttatga acgatcagga agacgaagaa 180
 ttttaattaa taagggttta ataagattta taccttcaat aacattattt tgatttttat 240
 tatgtagatc taatatagca gctcctcctt cattaaattt attaggtgaa attatattga 300
 ttaattctat aataagttga tcaataatat taatagtatt aattataata atttcattta 360
 taagagcaag gtatagacta tttttatttg cttatagtca acatggaata agaagaataa 420
 gactatattc ttgtcttctg gaagggttcg agaattttta ttattatttt tacattgatt 480
 ccattaaatt attaatttta aaaagagatt attataatta tttataaaaa aaaaaaaaaa 539

<210> 1482
 <211> 540
 <212> DNA
 <213> Ctenocephalides felis

<400> 1482
 ctaatcgaag tgatcgtaaa atattaaatn gacagctatt tgttaaaaca attgtgcatt 60
 atagaaaaac atttaagtga aaattaatta cgtttcagca gaaatacatc ttctttgtaa 120
 atttgggggtt aataatcttt caaaatgcag atctttgtga aaactctcac agggaaaacc 180
 attactttgg aggtagaacc ttcagatacc attgaaaacg ttaaagctaa gattcaagat 240
 aaagaaggaa tcccaccaga tcagcaacgt ttgatttttg ctggtaagca attggaagac 300
 ggcagaactt tgtctgacta caatatccaa aaggaatcaa cattgcattt agtattacgt 360
 cttcgtggag gtatgcaaat ctttgtaaaa acattgactg gaaaaactat tacattagag 420
 gttgagccct ctgatccatt gagaatgtaa aagctaaaat ccaagataaa gaaggaattc 480

cccagatcag cagcgtttgt ctttgctggc aaacaattag aagatggaag acttgctctga 540

<210> 1483

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1483

gtnacattga tcggatctgt tagcaaaggc tnccaaantg ccgaaatoga tgaatgttcg 60
tgtgaccacg atggacgcgg aactggagtt cgcgatccag cagaccacca ctggaaaaca 120
gcttttcgat caggtgggtca agacgatcgg tctgcgcgaa gtctggtttt ttggactcca 180
atatactgac agcaaggggtg atttgacgtg gattaagctt tacaaaaagg tcatgaatca 240
agatgtcaaaa aaggaaaatc cacttcaatt caaattcaga gcgaaatfff atcctgaaga 300
tgtagctgaa gaacttatac aggacattac atctcgtctt ttttatcttc aggtaagaa 360
cgctatactg tctgatgaaa tatattgcc tcttgagaca tcggttcttc tagcatctta 420
tgctgtcaag cccgacatgg agattttcaa aaagaccaac actcttctgg attttggcga 480
acgatagact gtaccacaaa gggtaatgga tcaacacaaa atgtctaaag aagaatggga 540
ac 542

<210> 1484

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1484

cagacactga caaaggcaaa aatgggtcgt cgaccggcca gatgttatcg ctattgcaaa 60
aacaagccct accccaaatc tcggttctgt cgtggtgtgc cagacgctaa aattcgtatc 120
ttcgatttgg gtaagaagaa ggcaggcgta gaagattttc cactatgtgt gcactttgta 180
tctgatgaat atgaacaatt gagttctgag gcactggaag caggacgtat ttgctgtaac 240
aaatacctcg ttaagaattg tggtaaagat caattccaca tcagaatgag gctgcatect 300
ttccatgtta tccgcatcaa taaaatgtta tcgtgtgctg gagctgtag gctccaaact 360
ggaatgcgtg gtgcttttgg aaaaccacaa ggtactgttg ccagagttca catcgggtcaa 420
ccaatcatgt ctgtcgttcc agtgacagat acaaggccgc tgtttagtag gctctgcgtc 480
gtgctaagtt caagttccct gcagacaaaa gatctatgtt ccaagaaatg gggattcact 540
aa 542

<210> 1485

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1485

cacaagttct attcaaccag atagaatctt acttatggat acgtttttcc aaattttgat 60
cttccatgga gagactatag ctcaatggag agctttgcga tatcaagata tgccatgagta 120
tgaaaatttc aaacaacttt tgcaagctcc agtagatgat gctcaggaaa ttttattgac 180

acgtttttcca atgcctcggt atattgatac cgagcaaggt ggatcacagg ctcgattttt 240
 attatccaaa gtcaatccct cgcagacaca taacaatatg tatgcttatg gaggagacgg 300
 aggagcacca gtattgactg atgatgtgtc tcttcaagta tttatggagc atctaaagaa 360
 attagcagta tcttcaaatt cataaaatta tataaagaca gaaatagata taaaaatctt 420
 attttatctg taatattgtg tgtcagtctt tatatttgca atatagataa gtaataaatt 480
 caattgatta tgaacctaaa tacattgata tattaaaaga acatttacac taaaaaaaaa 540
 aa 542

<210> 1486

<211> 540

<212> DNA

<213> *Ctenocephalides felis*

<400> 1486

acagttaaag tgtattcaaa tcaaataatt ccataaaact attctagaaa attatccaac 60
 acagttagat aagatgaagt ctttggtgct cttggccggt ttggctgtag gttttgcaaa 120
 cgctgaatat tgttacgatg aaagtgttac tgcttggtca tcgactgcc aataaggagga 180
 tctcccccatt tgtaacgctc tctactccgg tttccacact gtggctgccg atttatcatc 240
 atacgttaaa agagaagtcc tatactccta cgactacttg ctgatgtcca cacactttgg 300
 aaactatgaa aagaatcgtg ttggccttga aaaactcttc aagggcctct ccgacaagtc 360
 ttgggaaaac gcaatcaatg tcatcaaata catcaccaag cgtgggggca ctgtcgactt 420
 ccagactact cacaacgtca aactacccg tgtagccgaa acatcagaat tggaaagttt 480
 ggctagggct ttggagaatg agaaagtgtc cgctaaggat gccaggctat tcacaaacgt 540

<210> 1487

<211> 542

<212> DNA

<213> *Ctenocephalides felis*

<400> 1487

caggagaaag cttcagttcg tgcacactaa atgtgttagt accaggcgag aagaaaaaga 60
 caccagcttt cagcactttc ccagagtccg ccagcgtgca agagggcgag agtgcacgt 120
 tcttagttcg cacagaagac gaagttcttg gacttcaatg gataaaagat ggtaaacct 180
 ttgacgagaa gagctctcgc tatcgattca caatggaggg caaaacgacc ttccgattag 240
 agatagtatc ctgcgccagc atagacgtgg gccaatacca agccaaagcc atcggtaga 300
 caggagaaac attcgctgcg ttctcagtga atgtcgcagc cgagcattga gccgaacaac 360
 taaattaata accgatcctg cacacggctt aggccaaaaa acgagacgac tcgcgttgaa 420
 tcgcgagata tcgtgtaaac ttaagtttat taaattatta tgtttatatg aataaattat 480
 tagtgtgatc taagcgtgtt ttcattataa ttcgccttgc cacttcgctt atatatangc 540
 cg 542

<210> 1488

<211> 542

<212> DNA

<213> *Ctenocephalides felis*

<400> 1488

atcagctacg cagagccact tccatttcac tccctggacga gtcctttggt gtgtccgggtg 60
aacgtagaga tcagggcgtg gtagtggcct tgaaggatgg ttttggcttt cttcgtttgtg 120
cagaaagggg gccaagactg tttttccact ttaccgaggt tttggatgtg acgagagaga 180
tctccatggg agacgaagtg gaattcacag cagtacaaga tccataatagc tcttttgcta 240
atttttagaca cagcgtctata aggattaagc atttacctcc ggggtactgta aaattcgaaa 300
ccctaatacga atcaaatacga acgggagtcg tgactaggga agcctctcca agaagcccta 360
gcaaatacga aaacgggtggg ccaacacaaa acggcggggc tccagttcca gaagggggca 420
tgattttctta tcaaagcaac ggtcaaaaaga aatcagttcc tttctttgca aaagattgtg 480
atcggcaacc tagaatgggt gataaagtga tttcaacatt agtcagggtta agcgtataata 540
ag 542

<210> 1489

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1489

gttttggtca gcctgaaatt gcaattggaa caatccctgg agctggtggc acccaacggt 60
tgaccagatc tgttggcaaa tctaaggcta tggaaatatg tcttactggc aacatgggtca 120
cagctgaaga ggccaaaaaa atgggcttgg taagcaaggt attccctgct gataaattgg 180
tcgacgaaac tgtaaaatta gcagacaaaa tttcatcaca ttctccactt attgtctcat 240
tgtgcaaaga agctgttaac actgctttgg aaacttcttt gcaagaaggg ttacactttg 300
agaagagagc attccatgct acatttgcca ctaaagacag attggaaggt atgactgctt 360
tcgtagagaa acgagcacct aactttaaga atgaataaaa agactactcg aattttataa 420
ctctatatgt atataatttta cattaccttt gtaataaggta atatgaataa cctctttatt 480
tacatgcatt tgatatactt aatgatattt gatataattcc ttatatgatg attccattat 540
tg 542

<210> 1490

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1490

cgaaccata aaaaaatagc gaaaactcaa tgnccctcatc aacaatgccg gcatgttggg 60
aacaggcacc atcgagacaa ccagtctaga ccagtacgac agaatacatga acgttaacat 120
gagatctgtg taccatttga caatgttagc agtgcctcat ttgattgaga cgaagggaaa 180
tattgtgaat gtctcgagtg ttaatggat acgttctttt cctggtgttc tggcttataa 240
tatatccaaa gcggcttttg atcagtttac aagatgcgtt gctttggaac ttgctcttaa 300
gcaagttcgt gttaattctg ttaatccggg ggtcattatt actgagatac ataaacgggg 360
gggaatgat gatgaaactt ataaaaaatt cttagaacat tgcaaaacta ctcacgcctt 420
aggacgtcca ggacaagtaa gtgaagtac caatgccatt gcgtttcttg caagcgagca 480
cagcagcttt attactgggt cttcgttacc ggtgatggag gcagacatgc ctgtgccac 540
ga 542

<210> 1491
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1491
 gnnaattatt ttattaagcg cattatttgc gngtgtnatt tgctccttta acgcggaagt 60
 acaaaatcga atcgttgggt gcaatgatgt aagtatttca aaaattgggt ggcaagtatc 120
 tattcaaagt aataaccaac atttctgtgg tggttcaatc attgctaaag attgggtact 180
 gacttcttct caatgcgtcg tggacaaaca aagtccaccg aaggatttaa ctgttcgtgt 240
 tggaaactagc actcacaatg atggaggaaa agtgtatgat gttattgaaa ttataaaaca 300
 tcogaaatat aataaagcag tgccagatga ttttgatggt gcacttttac ggatcaaaga 360
 gccaatatca ttactccat gcacagtaac tcctgtaaaa ttaatacaat cgggaaaaga 420
 agtccgaagg gaacaacttt gagtgttaact ggatggggcc cacgaangaa tggggggccaa 480
 tttcgcaaag ttcaagaagt taaagttaaa gcttactcaa gtcaagaatg cangaacagc 540
 at 542

<210> 1492
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1492
 aaaaaaacia gcttttttaa cgaaatatat ngcaaaaaga gaaatatata aacaaactta 60
 atgtctgaaa caatatataa taatatatttc aacgctaacg cttaaataat tccaaaacia 120
 atcatgagtg actattttct tttatgttaa cctctttacg caaagaaaat gtttataaac 180
 ttcaaacaac gttaagggtga taaatgttta cctaataata ataataataa gtttattttg 240
 attttgtgta taaaaacatg tcttggaggc tgctgttgaa gttttaattt gcaagtgtta 300
 gatacaactt aataaaaaat gtctcaatga tgacaataac aaaaaattct tttacccaag 360
 tgcctcttgt atttataata tgatatacaa aatgcccccg tttagacgta aaaaatctgg 420
 aaagtctttt ccagttaaag tttgcacttt ggacgctgag ttagaattta atttggagtg 480
 gaaagcgaca ggcaaagatt tattcgaatt agtttgccgg acgattgggt acgagagacc 540
 tg 542

<210> 1493
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1493
 agttcatctt atgttgtaat tatattatca gnttgttgta aacacttctt attttatatc 60
 ataaatatcg ctgtatttga tttacacgat ggctgcaaga ttgaattcat tgtttaaaac 120
 agatttcaca aattacataa aacgttttaa cagcgttcaa atacgttgct taaatttgca 180
 agaatatcaa agtaaaactc tacttcaaaa aagtggcggt gccgttcaag cctttagatt 240

attagataac accgaaaaca caagtgtctt aaatgatttc aaagtccccc aatatgttat 300
 caaggcccaa gtttttagcag gaggtagagg caaaggccat tttgataatg gctttaaagg 360
 tgggtgttcat ataacaaagg accctaaaga aatattgcc aattgctaaaa atatgatggg 420
 tcacagactt attacaaaac aaacaaaagc tgaagggtata cttgtcaaaa agttatgggtg 480
 cacaaagcgt tgacatttgc gggaaacata ttatgtatca tcatggcaga gctcatatgg 540
 cc 542

<210> 1494

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1494

gtncgattga tttgggtgcta attcgattca gntttgcatc agtcacagtc aaagtccgta 60
 ataaaatatg gttactaaag cagtttgcgt tttaaacggg gaagttaagg gaaccattta 120
 cttcgatcaa agcgggtccag aagcacctgt cacaactaaca ggatgcgtta gtgggtttaag 180
 caagggtgat cacgggtttcc acatccacga attcgggtgac agcacaaatg gatgtatttc 240
 agctgggcca cattttaatc cccacggtaa agaccatgga ggacctgatt ctgctatcag 300
 acatgtcggc gacttgggaa atcttgtagc tgatgccgat ggaaacgcta aagtgaaaat 360
 aaccgacagt caaatttcct tacaagggtcc tatgagcgtt ataggcagaa cattgggtgtg 420
 acatgctgat cccgatgatc ttggattagg tggatcatgaa cttagcaaga ccactggtaa 480
 tgctggagct cgattggcct gtgggtgtatt ggaatctgca aacctaatt taaaattgta 540
 tg 542

<210> 1495

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1495

attcggtgcc agtgttccag aatcatggaa aagattagat ggtagaatcg taggaggaca 60
 cgataccagc atcgataaac accctcatca agtatcttta ttgtactcca gccacaattg 120
 tgggtggttcc ttgattgcc aaaaactgggt tttgactgca gtcattgca ttggagttaa 180
 caaatacaat gtccgtgtag gaagttccat cgtaaacagc ggtgggtatct tgcataaagt 240
 taaaaacat tacagacatc caaaatacaa cgcagctgct attgactttg attacgcact 300
 cttagaactc gaaactcctg ttcaactcac aaatgatgtg tccatcataa aattgggtcga 360
 tgaaggagta gatcttaaac ctgggtacctt gttaactgtt actggatggg gatcaactgg 420
 aaatggacct tcaaccaatg ttttgcaaga agttcaagta ccacatgtcg accaaaccac 480
 ttgctccaaa tcttaccagc gaagtttgac tgatcgatgt tctgcgctgg ttatttggga 540
 ca 542

<210> 1496

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1496

```
gttncccttgt ctgcagctat tcctcactcc agcagagtcg ttggaggact ggaagctgca 60
gaggggttctg caccttatca agtatccttg caagttggca acttccactt ctgtggtggt 120
tcaattctga acgaatattg ggttttgact gctgctcact gtttgggtta tgacttcgac 180
gtggtagttg gaacaaacaa acttgatcaa ccaggtgaaa gatacctcgt agaacaaact 240
tttgttcacc aattcgacca ggaatcttta agacacgacg ttgctttggn gaaagtgcc 300
gccctatcng aattcaatga ttatgttcaa ccaattccat ttgggcgaaa cttatgttgg 360
aggcggtgaa ntgctcgctt actggatggg ggaagactgg aactacttga atggaccaat 420
gaactccaag acttacactg tacataaanc acaacnatgt gtaagnaaca attntccagt 480
tacncagcac tttgannntt ggtgcagnga cnagccctnc accgtgactn tgggtgncctt 540
gg 542
```

<210> 1497

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1497

```
gcccgagtta gacgcgtttg tgaaatctag agttttttat ttagtaaatt cgtgcttcgt 60
gttgaatata ttcgtgatgt ctggacgacg atcgggtact ggaagaactg gcccggccta 120
taactccoga gcgagtactg ggggtcctaa taggcactac aacgatggca atcgttataa 180
taatactagg agtaactcaa actacaacca gcaggaacag caacaacaga acaatcagca 240
gcaatatcca cttgctcaag cacaagctcg caatcaaaat acatacaaca aaccggttga 300
agtaaaagaa gaaataaaaac cggaagtaat gccatcacct caaccacaac gtcaagctcc 360
aactccagtt ccagcgccag ctctgtttgc tacaactccc accaaagtaa aggcagatga 420
acccccgcg caagagcccg ttcagaaacc agaagcaatg caagaagatg gtggagatgg 480
tgataacgat aaaaagcctg gaagaaaaac aaattgataa gtgaaaaact agcaacagcg 540
aa 542
```

<210> 1498

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1498

```
gnntttgcaa gctttgaaga gtgttatagc agaccagttg ataaaatatg attttcagta 60
ttatcatgtt gattttcaat gtgatattcc tgtattagta tttagcgagg gcaaaagtat 120
tctggatatt aaaaaccaa ttcctttgga gatagatgaa aacatcaggg acaactttga 180
aaatatttta ccagctgtta aacagttttt aagtaatgaa actatggatc tcattagatg 240
ttatttaaca atcatgaaat actcagaatt tgaagttaat caggaattgc atgagattat 300
agaaaatgat tttgtgaact tactgcaaga accaggaatg actccagaag atctacactc 360
atatttaaca ctggccagat tgtatagttt atcccgaggt ctaaggcatt taacaaaaga 420
ctctgcaag cagttaaaga tcttgagact aaaagaagat ctagaatcaa agccccaaac 480
acactgcgaa atgtgaattg atataaagtn tttcattcct gngatatatt aacttgtttt 540
ga 542
```

<210> 1499
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1499
 atnacttcaa gttttgtctg caatatataa aaatttaaga tggctaaagc accagcagtt 60
 ggtatagatt tgggtactac gtactcctgc gtgggtgttt tccaacacgg aaaagtagaa 120
 attattgoaa atgaccaagg aaacaggact actccttcat atgtcgcgtt taccgatata 180
 gagcgtctca tcggagacgc cgccaagaat caagtggcca tgaaccccaa taacacaatt 240
 tttgatgcc aacgtcttat tgggcgtaaa ttcgaggacc aaacagtcca agctgatatg 300
 aaacattggc ccttcgaggt tgtcagcgat ggaggtaaac caaaaattag agtatcgtac 360
 aaaggagaat ccaaaacctt cttccctgaa gaagtcagtt ccatggtgtt gactaaaatg 420
 aaggaaaccg ctgaagctta cttaggcaaa actgtgacca atgctgtcgt tactgncctg 480
 ctacttcaat gactcacacg tcaagccacc aaggattcgg gactatctcg gtctaaatgt 540
 gt 542

<210> 1500
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1500
 ccaatttata taaaagaatt taaaaaaata taaacatgaa gccgctgata cttcaagggc 60
 acgaacgttc cataaccocaa atcaaataca acagagaagg cgattttatta ttttcggcctt 120
 ctaaggatca caaacctaatt gtttggttct ccttgaacgg tgaaagactc ggtactttta 180
 atggccataa tgggtgtggtt tgggtgtatag atgtggattg gcaaagtact agatttatgt 240
 caggaagtgg tgaccggtct ctgaaattgt gggatttgga actaggcaaa gaaattgggt 300
 caatacctgc ccaagcatct gtgaggactt gcaatttctc attttcgggc aatcaagcag 360
 catattcaac cgatagtagt aaatcctcat cttgtgaatt atatattatt gatgtgcgaa 420
 atgcagatag cagtatgtcc aagctgatcc tattttaagg ataccaattc cagaatctaa 480
 agttacagca atgttatggg gtcttttagat gaaacagtat taacggacat gaaaatgggt 540
 ca 542

<210> 1501
 <211> 542
 <212> DNA
 <213> Ctenocephalides felis

<400> 1501
 gagaaaagag tggaagaatt taaattaaag aaaatgtgga aaagtcccaa tggaactatc 60
 agaaatattc tcggtggcac agtcttcaga gaagcaatca tctgcaagaa cataccccga 120
 ttggtaacag gatggaatga gcccatagtc atcggcagac acgctcatgc tgatcaatac 180
 aaagccaccg acttcgtggt accaggaaag ggtaaattag aattgacatt taccocccgaa 240

tcggaagtc caatgagctt caccgtccac acttaccaag gacctggagt cgccatggga 300
atgttcaaca ccgatatgtc aattgtagat ttcgctaatt cctcattcca atatgcctta 360
aaccgaaaat tgcccttgta cctatctacc aaaaatacca ttctcaagaa atacgatggg 420
agatttaagg atatattcca ggaaatttat gacaagcaat acaagaaaga atatgaagct 480
gtggaatctg gtacgaacat cgactgatcg atgacatggg cgctacgcaa tgaaatcatc 540
tg 542

<210> 1502

<211> 537

<212> DNA

<213> Ctenocephalides felis

<400> 1502

tttttttttt tttaaatatt agtgtaactt ttaataaaaat tatttactca atatcttaaa 60
attgtttgtg atggcacatg ttttataact gttttgaaaa ttctgagtca cttcttaaaag 120
ttaaaattta attaaagtca gtgtagtggg aataaataaa ttttggtatc aaattaagta 180
ttggatatca tggcgaataa taatgtgata aattttgggg caggaccggc caaactccca 240
gaagaggtga tgcttgaagt gcaagaacaa ttggtgcatt atggtgaaac aaaaatcagt 300
gtaatggaaa tgagccatcg atcaaaagac tacatgaaaa tcaacgatga tacacaaaat 360
gcagttaaag aattattcaa ataccggaca attcaaaata ctatttctgc aaggaggtgg 420
cacaggatgt ttgcagccat accactgaat attttgaaga ctggagttgc agattatgtt 480
gttacagggt cttggtctgc aaaagctgca aagaagcacc aaattggnaa gtaacat 537

<210> 1503

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1503

cnttaatat ctatgaatgg tggagaagat tngngctcang atgtgaaaga gcaagaacaa 60
gttaacgggtg gcggtgaaga aggagccggc gatgcgtctc gtgaaaatgg aagcgccgaa 120
gctcctggcc gtgacgacga taggaaactc tttgttggtg gacttagttg ggaaacaact 180
gataaggaat tgcgtgaaca ctttgggtgca tatggagata tcgatagcat taatgttaaa 240
actgacccca gtactgggtc atcacgagga tttgcattca tcgtgtattc atctcctgaa 300
tccattgata aagttgttgc tgtatctgaa catataatta acaacaagaa agtagatcca 360
aagaaagcca aggcccgcca tggaaaaatt tttgttgagg gtttgacgac tgaagtcagc 420
gatgatgata ttaaaaacta tttcaatcag tttgggacga tcatagaagt tgagatgcca 480
tttgacaaga cgaagaatca acggaaaggt ttctgtttat acttttgaat ctgagcaagt 540
tg 542

<210> 1504

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1504

```

cgcagtcacc ctaacccttc tagtcatatg cgttttctac acctctttcg gagggatgag 60
ggccgctcgtc tggacggaca cgcttcagtc catcgtcacc tgcggcgcta tgttcgccgt 120
cgtctggata ggagtagcag acgtcggagg aatagcagaa gtcttcagga gggctgacga 180
aggaggcagg atcatatitt tcaatatgaa tccaagtatt taccaacgaa catcattctg 240
gagtgtcagt cttggactga caacatgtg gttgtctaata cttgggtgtca gtcaaagttg 300
tatacaaagg ttcctgtctg tgccaacttt aaaggacgct agatgggtcca ttatctactt 360
tacgataggt ttagtcttaa caaatcaat atcctgcttc accggactat tgatgtatgc 420
tcattacaaa gactgtgatc ccttaagtac tgggtgatgtc aaaaaagcag atcagatgtt 480
gectattatg tccacgacgt ggcagggtata taccaggact ataagtttat tcgtactgng 540
tc

```

<210> 1505

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1505

```

ctaataaaga gatggctgga aaacgacgag ttataatcga cgtagatgcc ggttcggacg 60
atgccatagc tttgctcatg ctgatagcag cgcacaaacg gggatgatgt gaactaatgg 120
gtatcacttg tgtggcgggt aatacaaatg tggataatgt tgcgataaat gttctacgtg 180
ttctgggtgc tgtaaaggct ttagatatcc ccatttaca aggtgcatcg gaaggctctga 240
ttcctctaga tattccaaat tccacagaat ctgagttcca tgggtggatg ggatttggtg 300
atttagagca ctatggaaat gatcctgatt tgagtttaat caaacgagag catgcagtaa 360
attacctaata ttctgcagct aaacagtatg aaaatgaaat tacttttata tttgtgggcc 420
tctgacaaat gcagcacttg caattaaaat gtatccagggt tttctagaca aaactaagga 480
tgtgtantaa tgggtggcaa ctataaagcg tgggtaataa aacaagaccg cagaattaat 540
tt

```

<210> 1506

<211> 542

<212> DNA

<213> Ctenocephalides felis

<400> 1506

```

aaaatactag ttttattgcc attaatatit gaaaaatato attgagaaaa tgtcaatatt 60
attatgcgcg ctattttttg cttcgacgct tagcaatgaa actttgtcga aacaccatca 120
agttaagaat cgtcgatttt acatagatta tgataaaaat acattcatga tggatgacaa 180
accatttcga tacatagcag gttcattaca ttattttcgg gtacatccgc aacaatggaa 240
agaccgtttg gaaaagctaa aagcagcagg tttaaatgcc gttgatacat atgttgagtg 300
gtcacttcac aattttgatg aaggaaaata ttgggtggggc agcaacgccg atttgagaca 360
atattattaaa actgcacaag aagtaggatt gtatgtaatt ttgagaccag ggccatacat 420
ttgcgctgaa cgtgattttg gaggccaacc ttattggctc ttatccaccc agaaaaagat 480
attaaaccaa ggacactgtt tcgtatatgg aagcagcacg agatggatac aagaatatta 540
aa

```

<210> 1507
 <211> 550
 <212> DNA
 <213> Ctenocephalides felis

<400> 1507
 cttgaccgcc accgagtctg aagtggctgc actcaacagg aaggtgcaac aaattgaaga 60
 agatttgga aaatctgaag aacgtgccgg aagcgctacc accaaattgc ttgaagccac 120
 acaagctgcc gatgaaaaca accgtatgtg caaagtattg gagaaccogc tcacaacaag 180
 atgaagagcg aatggacca ttgaccaacc aattgaagga agcacgtctc ttggctgaag 240
 atgctgatgg taaatctgat gaagtatcac gcaagttggc cttcgttgaa gatgaactg 300
 aagtagctga agaccgtgtt aagggaggtg acagcaagat catggagttg gaagaagaat 360
 tgaaggttgt aggaaactcc ttgaaatctt tagaagtatc cgaagaaaag gccaaccaaa 420
 gagtagaaga attcaaacgc caattgaaga ctttgccgtc aaacacaagg aaccgaactc 480
 gtgccgagtt cgccgaaaag accgtcaaga actgaaaagg agtcgcaggc tgaagacnat 540
 tggcataaca 550

<210> 1508
 <211> 548
 <212> DNA
 <213> Ctenocephalides felis

<400> 1508
 aacatcccat aataaaagca ttgtacagcc tagtggtaat gatcatattc gagggggtaa 60
 tgttgctcca cctagaatgc aagatgttgt ccgtccaaaa agatattctt gtcaaagacc 120
 tgggtgtatt gtaccagaaa caaacatgca aggccaaccg cagcaacaac aacctgtata 180
 tcaacagAAC tactatgcaa ctgaatatac tccgcctgta gcaaatgaac aaaataattc 240
 acatcaagga caacatatac cacaagcact aaatgggatg cccaaccag ggggtcaggt 300
 tgtacctcct aatatttctg tgccaccccc gcaacaatg ctttatgtac cagaaccagt 360
 tcctacacag gtcataacca ctagtaatca agtgatgccg caacaagttc ttgccctcaa 420
 tatcctcaag ttctatgcag tttaattcgg gaggacccta catggctcaa ataatacttt 480
 tatccacaat ctttaggtat ctgtcctctc taacatgcac cccacacaat atctcccaat 540
 ccctcata 548

<210> 1509
 <211> 405
 <212> DNA
 <213> Ctenocephalides felis

<400> 1509
 gattattcaa aagaaagaca atttagagga ttgcaaagta aaattgaagg cgagcataaa 60
 ttttcagtta ttagacaagg agaagtgaag cagatatcgg ttggtgatat tgcgtcggc 120
 gatatttgtc aaatcaaata tggagatctt ctaccagcgg acggtttatt gatccagagt 180
 aatgatctga aggtggacga atcctccctg acgggagagt ccgacctgt gaagaaaggc 240
 gagtccttcg acccgatggt cctgtcgggg acgcacgtca tggagggcag cggcaaaatg 300

ctggtgacgg cgcgcggcgt caactcgcag gccggcatca tcttcacact gctgggtgct 360
gcagtcgacc aacaggaaca agagatcaaa aaaaaaaaaa aaaaa 405

<210> 1510

<211> 482

<212> DNA

<213> Ctenocephalides felis

<400> 1510

caagctgtca aagctctggca aatatatattt aatttaataa tttttgtctg ttttaaataa 60
aaaatgtttc ggagagcgat ttctagtgtc actaaattgc acaaacaac tttaggtaat 120
caaattgtgc aagtcaggaa ccatggtgga actgccatt accgctgtgc ttcacgtcct 180
tcaaaagaaa ttaaacttct cgggtgaactt actggggctt taatgtggtg ctggtgcttg 240
taccatattt ggactgaacc ggatcatatt ttaggagagt ttccctatcc tgatcctagt 300
aaatggacgg atgaagagct tggatccca gccgagtaat gatggatagt taattgatag 360
aaataattaa atattgaaat ttaatgaagt atctggattg tatatggtac tgcaatttgt 420
atatagaaag tgaataagat gtgttaaacy gtagtgaaat ggaaaaaaaa aaaaaaaaaa 480
aa 482

<210> 1511

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1511

gctactcatt ttacgtaacg ttttagaagt gtgtgggtgt ggtgctaatt ttagcaccgt 60
agcgatcggt tttattaagt tttttttatt ttgagtaata gttttaatat attttaccaa 120
aatgttgcatt cttaagtcaa tcaccaaag tgcactgaaa cataaccct ccgaagtgtc 180
cacattgggt aaagctctgc caacggccat ccaaacgcgc tcttactcgc agcaccaa 240
tcccgatagg ctgaaggatg tcccaacaca tccaatcca agatttttcg acatggtgga 300
gtacttcttc caccgtgcct gccagatcgt cgaatctaaa ttggtcgagg acatgaaagg 360
aagcaaatg acagttgaag ataaaactaa gaaagtcaaa ggtattctta tgttaatgca 420
gccatgcgat cacatttttg aaattgcttt cccattgcgc agagattcag gaaactacga 480
aatgattcag gggtaccgtg ctcaacacag cacacatcga caccaccaa ggaggttcgc 540
tttcaatggt 550

<210> 1512

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1512

gtcacttgta gcggtttgtt cgattataat atttttacga aacaatgaaa gtaatattga 60
gaaacaaata atacaaatgt agttgatttc gtacatttta tagcaatctt cacgatggcc 120
gccggtccga tagcagaaag aaatcaagat gccactatit atgttggtgg tttggacgat 180

aaagtctcag aaagtcttat gtgggagcta tttgttcaat ctgggcctgt tgtgaatgtc 240
catatgccaa aagatcgagt aactcaaatg catcaaggat atggatttgt tgaatttctg 300
ggagaagaag atgcagacta tgcaatcaaa attatgaaca tgataaaact ttatggaaaa 360
ccaattaggg tcaataaagc ttcagcacat cagaaaaatc ttgatgtcgg tgccaatgtg 420
tttataggaa atctagacac agaagttgat gaaaaattat tgatgacaca tttctgtttt 480
ggagtaattc ttcaaaccgc aagatatgag ggatccaacc tgnaatcaaa gggtttgcac 540
cataaatttg 550

<210> 1513

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1513

ggcagttaac ctaccgtgtg gaataaattc gagggttttc tgctgaagtt gttattaagt 60
taatgatatc aagtctatca catatattta cgtactatct ttaagtgtga cagaattata 120
agtgtgcttt gtttataatt taagaagtga aaatagtaat taaagcagta aaatatggta 180
aatttaggtg acattttccc aaattactgt ttaaaaacat ctattgggtga tattaagttt 240
catgattacc tacaagattc atggggaata ttattttctc acccggccga ttttaccocg 300
gtttgcacca ccgaattagc caggggttgta aaactgatgc cagaatttga gaaacgcaat 360
gtcaaggtaa ttgccttgtc ttgcgataca gtagcttctc atctggaatg gtccaaagat 420
attttgagct atgcaggtga aatgaccaag acattcccat acccaatcat cgacgatagt 480
tcccgcgaat tagcagtaaa cttcgtatga ttgcccgcg agaaggataa ggatggatgc 540
gtgccgccag 550

<210> 1514

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1514

tcaaagtgga cgtagttaa atgataattg attttagta attgaaagtt ttgtatttta 60
ttttgttaaa atattttgtt aatttcgttg ataataaatt aataaaaagt gcccgaaaat 120
gtctgcatct cctctggaac gattgtcaaa aacagagacc atcgagttga gggacaaaca 180
tattggaaaa tcctgccaat tgttcttcgc agaggatcct ctgaagattg taagaggcga 240
gggtcagtac atgtacgacg agaactggac aaagtacttg gactgcatca ataattgtagc 300
acatgttggc cactgccacc caaaagcagt agcagccgga gcccgcaaatt gtccctgctc 360
tacactaaca accgtttcct ccatgacgag ctggtgatcc tggcccgag gatttcctct 420
gttttgcaga acccctgagt gtctgctacc tcgtcaattc aggatcggag gctaacgatt 480
tggccttgag gtggcaagga ttcacacagg aaacaagatg ttatcacgct gcacagttag 540
tagtagatgg 550

<210> 1515

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1515

agagaactag cctgtgaaaa gatcgtcggc tttggggcag ccagcacgta ggtttctgac 60
tcatttcagt ttggtcattt ctgattggca tacatcattg ttctgcaact gtttttataa 120
gtttttacac atcttccaaa tcctgtgcag ttttttttat ttgggaccac agtatataac 180
aagttattgt atgagtcaga aaaccgaaaa accagtacta tcaggtcagc gcatcaagac 240
cagaaaaaga gatgaaaaag agaagtatga tccaagtga ttccgtgacg cagttatctc 300
aggctctgaa cgtgctggca acgatctcga cgcagttaac aaattccttg acacagcagg 360
ctctaagctt gattatcgca gatacggaga agcactgttc gatattctta tagctgggtg 420
attgtagtgc cgggtgggtc aatagcacia gatggagaaa agccccaac cagtagttgt 480
gtctcacagc ttctgaggat atggagtcaa tgcgaaacca ggagcagggt tcgtgaatta 540
tgctcgctta 550

<210> 1516

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1516

agaaagatat tccantgaaa agtgctattc tatggtttca attantnttg gatcacaaga 60
natacctact cgttnatnta aaatgaaaat tctaatttta ttcttaatca ttctttctat 120
gttttacctt gentcctgtg atgagcgcac ggtgaatgga aacgaagtat acattctaac 180
attttatttg caattgtcct ttncaagtaa ttttcaacat ttttgcggtg cancaatgat 240
cagtaagcga tgggcaataa caaccgcttt ttgtgctnaa aaaacgtcta tccatgcagc 300
tagagtacgt gctggaacca gcaaataata tagnggtggg actcattacg gtgtggaatg 360
gntcgtccct catcctcggt atgatagccg cgatcaaaat tcaatgtagg ttttaattntg 420
ataacanagg atttcaatga aactagaaga accgcctgcn agctcgtana ggcaaatgtc 480
gcttnctgta gctcctttgc cattctggat ggngatctga ncgatccang agcacctatg 540
taagaaatct 550

<210> 1517

<211> 550

<212> DNA

<213> Ctenocephalides felis

<400> 1517

ttaatgtcga cggaacgcct ttaacagtaa ataaagaagt atttgcatca ttggatgagc 60
ccgcaccagg agtagtacct actcctgaac ctacacctgt accgaaaccc gagcaaaaat 120
gtaaaaaagt aaaatttagt tgcgtgaatt cgtgcagttc acccgaaatg cagtattgtc 180
cggaatatag agcagatccg gttaaggaat cctgtagccc agatcaagtg tgcgctgac 240
aaagtggata tctacagtgc accactaaag aaagtacagt ctgcaaagta caaggtttca 300
aatgtccgtc accatcgaga ttttatccaa atataaatga ttgtcaaagc tattattatt 360
gtgacgaaaa tagtatagga acccaatatt attgcccga aattttgcat atgatccgtt 420
acgtcataat tgcggcctat ggctctgggc acaaaatgct atacagttac atgtctgcc 480
gcctaagggtg cttccgtaca ttgggtgataa atattgacgt cgatgtatgg ccggaagagg 540

accgtangca

550

<210> 1518

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1518

cgagtttata ttttattttt aataatttaa tttatattat tgaatgggag attattagaa 60
ttaatttctat aataattatt tttagaatat tatttgattg aatatcttta atatttataa 120
gatttgtatt aataatttct tcaatagtag ttaagtatag agaaagatat ataatagaag 180
attttaataa aaatcgattt ttattattag tattaatatt tgtattttct ataataataa 240
taattattag tccaaattta attagaattt tattaggttg agatggatta ggtttagttt 300
cttattgttt agttatttat tatcaaaaata ttaaactcta taatgctggt atattaactg 360
ttttaataaa tcgaattggg gatgtgcttt attaattaga atttcttgga taataaatta 420
tggtagtga aattatttat tttatataaa atatataata aataatttga aataatttaa 480
ttatattttt gatttaattt ctgcaataac taaaagagca caaatccttt tcttcttggt 540
accagctgca 550

<210> 1519

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1519

ggtaaataaa taaaaaaaaat acttttatga taacagaaaa aaaactacag gtttaatgaa 60
atcagttaaa atcagagtga attttaacat ataaatttaa atattataaa aatcatctta 120
gcttttacaa acttaaatg caatgagtaa ttgttgctga atattatgga ttgcgatagt 180
gatcggttta ggtgtgttgt attacgaaat aactaaagaa tttccaaagc caaatatacc 240
tctggataca tgggtggggaa ctggaaaatc acaaaaaatt gatacatcaa tgaggccggt 300
taaaattgcc ataaacgatg aggtccttaa taccttgaaa gtgaaactaa gtgatgtgtc 360
ctttactoca cctcttgagg gcatcgattt ccaatatggt ttcaatacaa ataccctgaa 420
aaaacttgta gaottttggc gaactcaata caattggcgc gaacgtgaag cattattgaa 480
taaattccca cttcaaaaaca aatattcaag gcctggtatt cactatgtcc ataaaccaca 540
gtctccaaaa 550

<210> 1520

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1520

ctggtcttcc cgccttatcg tacatcataa ttogaactca aaatcccaat atcgtacaaa 60
gactagtcct cggcgtgct ttgctatatt tatcatttgt tcacatgcac agacagtatt 120
atgattacgg atcatacacc ttagacatta caggtccoct tatggttaatt actcagaagg 180

tgaccagtct tgcgttcagc attcacgacg gcctggcacg cgacgagaaa gatttaacga 240
aggaccagaa ttatcatgct gttcgagaa tacctactgc tctagaattc ttcagttaca 300
ccttccattt ccagggtctt atggctggac cagttgtttt ttatagagat tatattgatt 360
ttattgatgg aaaccatgtt ctgaaattta caccgaaatc aacggcaagt ctagataata 420
actcaaacag cagaaaagtt gtgcttgaac cttctctata atcattgctt caaaaaagtg 480
atagtcagca caatatgctc ctgtatttat tagttcttcc attgttccaa ttaaagcttg 540
aaagaagatg 550

<210> 1521

<211> 550

<212> DNA

<213> *Ctenocephalides felis*

<400> 1521

ggaaaacata aattcctcgg atacaaaacc aactcattgg atgaataaag atggaaaacc 60
tttgactatt gaagtaggaa ataaagatgg atgggttatt ataaataaac agaattcagg 120
ttactatcgc gtgaactacg ataaggacaa ctggaaaaag cttgcagatg tcttgaaaag 180
tcttgaattt gaaaaaatcc acgtactcaa cagagcccaa attttagacg attctctaaa 240
cttggccaaa actggaaaac ttgattatga attggcctta gacattttag attacttgca 300
ccacgaattg gattacgtgg cttggaaagc agctgaagaa gatctcaatt ttctcgataa 360
tatgctgagt ggaacaaaag tctaccccaa atttaagaaa tttgtattgc atttagtgaa 420
caaagtttat aataaaatgg gatttgagca acaagatgct atgggcacat tgngtttcac 480
tcgcataaat gctctaacat gggcttgnaa atggccttnc agatgcttgc agtctcatgt 540
cgcttntgct 550

<210> 1522

<211> 172

<212> DNA

<213> *Ctenocephalides felis*

<400> 1522

caggatttca tgggtcttcat gttttaattg gaacttcttt tcttattatt tgtttactac 60
cacttagatt atttcatttt aatcctaaac atcatttttg atttgaagca gcagcttgat 120
attgacattt tgttgatgta gtagattat ttttatatat ttctatttac tg 172

<210> 1523

<211> 673

<212> DNA

<213> *Ctenocephalides felis*

<400> 1523

gttaattccc attaacaagc ggcgtttttc gtttagcaat tcaataaatt acacacttca 60
caatggctga tatggaagat actcatttcg aaactggaga ctctggagct tcagcgacct 120
atcccatgca atgttctgca cttcgaaaaa atggttttgt aatgttaaaa tcccgcctcg 180
tgtaaaattg tagaaatgtc cacttccaaa actggtaaac atggtcatgc taaagttcac 240

atggtcggaa ttgatatttt caacggcaag aaatatgaag atatatgccc atctactcac 300
aacatggatg tcccacatgt aaaacgtgaa gattatcagc tcaactgacat tgatgacggg 360
tacttaacat tgatggctga caatggagac cttcgagaag atcttaaaat tccagatggc 420
gaattgggac agcaacttcg taatgatattc gaatctggaa aggagctttt gtgcctgact 480
aaaatcttgt ggagaagaat gtgtcattgc gatcaaaacc acacagcctt ntaatatgat 540
tttcacacat tcaaataaaa tctatgagac cattcaactg ttaacagttg caagtggcgt 600
gtatctagtg tgttgctata aatctgcctc agcttggtan attatgcaaa atcagggttag 660
tctttgatat ttg 673

<210> 1524

<211> 681

<212> DNA

<213> Ctenocephalides felis

<400> 1524

gaaactgtta ctcttttggt tgcattaaaa gttaggtatc gtgaaagaat aactatactg 60
cgaggaaatc atgagtcacg tcaaattaca caagtttatg gtttttatga tgaatgttta 120
cgaaaatatg gaaatgcaaa tgtttggaaa ttcttcacag acctatttga ttatttacca 180
cttaccgctt tagttgatgg acaaatattc tgtttgcatg gtggtttgag cccttcaatt 240
gatactttag atcatattag ggcttttagac cgtttgacag aagttccaca tgaaggctct 300
atgtgtgac ttttatggtc agatcctgat gaccggggtg gttggggaat ctgccacgt 360
ggtgctggat aactttttgg ccaagatatt tcagaaacat ttaaccattc aaatggcttg 420
acattagtat caagagcaca tcagctagtt atggaaggct ataattgggtg tcatgatcga 480
atgttgatgac gattttctcgg ctcttaatta ttgctatcgt gtggcaccag cacattatgg 540
aattagatga tgcattaaaa tttattctca atttgaccac tctaacgggt gaacctatgt 600
ctagaagact cnataactctt gagatatcta tcatgtgtaa ttatcatcca gntagtcttc 660
tttctacacg ncataacnnc t 681

<210> 1525

<211> 676

<212> DNA

<213> Ctenocephalides felis

<400> 1525

gccgntgaag ccgcaccagc tcagctgca gccccgcgcg ccagcgaacg ccaatcatcc 60
aggggatccc gcaaagccgt caagcgcagt ggatctaacg ttttctccat gttctcaca 120
aagcaggtag ctgaattcaa agaagccttc caactaattg accacgacaa agatgggtatt 180
cattggaaaag aacgatctcc gtgccacttt cgacgaattg ggccgttttg tacaagagaa 240
agaactcgac gacatgatcg gtgaggcttc aggaccaatc aacttcaccc aattgttgac 300
cttgttcgcc aaccgcatgt ctggatcagg tggactgat gatgatgat ttgtcatcaa 360
cgcttcaag accttcgaca acgacggcaa aatcgacagt gacaggttac gtcatgccct 420
catgacctgg ggagataaat tcaactgcaa gaagttgat aggcctacga ccaaatggca 480
ttgacgataa aggcttcatt gtaccagaa gctcatcaaa tgtgactgcg tgcgaagaag 540
acaaaaagtg gtgaatataa gaaattgaat acttctacat atacatttaa aactgttac 600
ccattgtggg atatgttaaa atgaactaca tattttgcaa ctataataaa agtatgaaga 660
tgacanacaa atatgn 676

<210> 1526
 <211> 647
 <212> DNA
 <213> Ctenocephalides felis

<400> 1526
 gagacatcga aaaagtaagt tttatagaac ggccgcttac actttacaca accaaaatta 60
 atctgctgaa gaattttacg aagactaatt agtttttaat ctacagtatg gatgtgttga 120
 ataggcccg ctcacgaattt ggaaatgatg aaacagttga aactttatgg gctatgaaag 180
 ccatggatca tgttattgtc tattttaata tactttgctc tgtagacca aaattttctca 240
 aaatgtgccc ccaagatgaa attatctacc attgttttcg tcaagaattt ccagatatgg 300
 atgttaaagt actagatgaa aattcattaa aaggctatac aggaaaatgc cgatggagag 360
 aattttgtga acgattcaaa catatagaag attacagttt tggtccttaa tacgcttaga 420
 ttgcacattg gattatagtc cagaaaatac tatttttagtt ccaagagttc agttttatgc 480
 ctagaatctg tcgaaataaa gaaggcttat gctgatcaga aaaaaatatg ctaatgaagt 540
 gatgttgcca gnatgaaaat gaaatccata gaaatatagc atggtatggt aagagtcattg 600
 agaaaagggg gtantttattt tatttataat nttatcaaaa aaaaaaa 647

<210> 1527
 <211> 540
 <212> DNA
 <213> Ctenocephalides felis

<400> 1527
 gaggatgcc aacagaacc gtgtcgcaat ctacgagcac ctctttaagg agggagttat 60
 ggtggccaag aaggactacc atgcaccaa acacccagaa ttagagcaaa ttccaaactt 120
 gcaagttatt aaggctttgc agtcgttgaa atctagagga tatgttactg aacaatttgc 180
 atggaggcat ttctactgg atctgacaaa tgaagggtatt gaatacttga ggacatactt 240
 gcacttgccc ccagagatcg tgccctccac tctcaaacgt caaacaggc ccgaattggc 300
 aaggccaaga ccagctgccc gcccaaggac tgaaggatct cgtccagctg aagacagatc 360
 tgcctaccgt agggcacctg gtgcacctgg tggcgctgac aagaaggctg atgtcggtgc 420
 tggcactgga gacttggaat tcgtggtgga tatggacgtg gcagacctgc cctcaataaa 480
 tttatataag taatttataa taaattcaat aaaacattta tgataaaaaa aaaaaaaaaa 540

<210> 1528
 <211> 671
 <212> DNA
 <213> Ctenocephalides felis

<400> 1528
 catnaacaga tatcccgatg atccaaagca tcaaaatgat ttagcagtaa cactacttat 60
 gggaaacaga ccagctgaag ctttacgcgt tttgcacaaa gttttacaag tttggagaaa 120
 taatggtttt gcattgggtc actatggatt tatttataaa actactatga acgacttgga 180
 aagaggtgta aaatatttgc aagaaggtat tgacaccaa gataatggca caatggatgg 240

aagattcttg tttcacctcg gtgatggatt gcaaagactg ggcagaaatg atgaagctat 300
gaaggtttat gaaaccggag taaaaaataa aatcttccta tctcgatatc aacgttcact 360
ctataatatt gatagattag tgtccagacc ctgggtggact attgaacaaa ctggttatac 420
taaacttttt aatacattaa cttctaattg gaaagctatt cgagatgaag ctttaaccgt 480
gcttgcatgc aaaagcgcaa gagtaaggaa aaattgcaga atcaaaatct gggcctgtta 540
gagccaggca gaaaattaag agatctgggn atggagcagt tgacttatcg gagnetanga 600
taccggttgt ttaccatac agccgctatt tgcntcagan ctactgcctn ggcaataatc 660
actatgaccg n 671

<210> 1529

<211> 667

<212> DNA

<213> Ctenocephalides felis

<400> 1529

aggnnncacg cctatgctca aaagaacttg cgcagatctg ntctgctcat taaggaactt 60
nccttccaag ctgaagaaga ccgcaagaac cacgaacgta tgcaagacct tgtagacaaa 120
ttacaacaaa agatcaagac ttacaagagg cagatcgaag aagccgaaga aatcgccgnc 180
ctcaatcttg ccaaattcgc aaggctcaac agaattgga agaggctgaa gaacgcgctg 240
acttggtgga acaagccgtc agcaaattcc gcgcgaaggg acgtggtgga tccatggcac 300
gaggtggcag cccagtgcgc gcaagaacag cagctcgccc acaatttgac ggaatggctt 360
tcccgtagg ttgcacttga accctgacag cgagttctaa attatttata attaatatta 420
aaaaagcgaa cgtggctgct tgacagtaaa cattaatatt ttttaaaaat tattaanaagt 480
aaaaaatatc agctcggttca attgtgctta gtatgacatt tgatctaata taacactgtc 540
agnctaacac attatactat ttatcgccca tacatcaacg tcgctgcata aaatatacag 600
ctccattagc tctaattct tanttttgna atactttttt gcgatttatc aanggaatta 660
ttatgtt 667

<210> 1530

<211> 670

<212> DNA

<213> Ctenocephalides felis

<400> 1530

agcgtgttcg ccgaggagga acgcgcacgt tttgacacat ttcttttagtt ttttaagataa 60
aatccaatcc ttcccaacaa aaaattagtt ttaagcgcac atttatgttt agtgacacga 120
aggcgggtgt tataaaatta gtgtttacgt gatgtctaaa caacagtaca cagttgacgg 180
tgatctattc ggtacgcctc acaggaaaaa accagtgcct tggaatgagt tcttgtacaa 240
cagcgaagag ggaacagtct taggaaggac aggactgagt tgggcgaaaa tcggtatatt 300
ctacacaata ttctacggag tattggcagc attagtggca atatgcatgt ggggtgttctt 360
ccagacgtta gatcctcgta taccaaaatg gcaattagac gaaagtatca taggaacgaa 420
tccaggcctt ggcttcaggc ctttgccgcc gatgagaaca tagaaagcac gctcatctgg 480
tacaagggtta ccgatttaga caactacagt cgatggncaa atccttttaga gttcttcaat 540
ttacaaaact ccgataacct caccgagtaa acattcagtg tgctccactc gccgccccaa 600
gttgggtngc gngacgcaag ttggctcctgt cganaaacat ttatatacag acngcgggta 660
tttgagtgan 670

<210> 1531
 <211> 558
 <212> DNA
 <213> Ctenocephalides felis

<400> 1531
 aantngtcga ggtcacgaat ctgaaaatga gtngncaccn attcagctga tctctgccac 60
 agcttaccag ctcaaaaaac ccaatcaaca aatgttgatc ccaataactg nttggattgg 120
 tatggagcaa gcattcattg gtgctgattt cacacaggcc tatgtatcct gngcttttgg 180
 gtattaagtc aaattggata ccgtcatgat ctgcttcgga gtagtcaacg caatttgntc 240
 agtcgttttt ggttctataa tgaaattcat cggtcgccaa attatcatca ctttcggttt 300
 cttcctgcac atgggcctga tgattggatt attattctgg agaccaagcc ctgatgataa 360
 aatgatgttc tttgtcatgg ctggactttg gggagttggc gatgcagntt ggcagacaca 420
 aatcaatggc ctatacggaa ctctgtcagg cggacnaaag aggcagcttt cttcaactac 480
 cgctgtggga aagcttaagg ttgtcatcgt tacgctacag cacacacttg tgcccggcat 540
 gaanttacgt caattgac 558

<210> 1532
 <211> 660
 <212> DNA
 <213> Ctenocephalides felis

<400> 1532
 gtaaaaacaa aataaaatca ttttagtttg agttagaaca tgtgttatta taagttagcg 60
 taacacacaa aaattaatca taaatgtctg ataataattg gtagtatact tgtacagtaa 120
 attctttatt ttcttttcc caatcttttt ctaaaagcga gtgtgggtcat actgctgtgg 180
 taattcgtca ccgagaagcg gatgaagttt atcctccatc attagtgaag gctttgcttg 240
 tcagaagaga gaggagtgtt ggttgccggt gtttattgta gttttaattt aattttaaac 300
 taagttatgc gtatgaccca agacatggac gatgatgaaa agggaaagct tttcgtcgga 360
 gggctatcat gggagactac tcaggagaac ctgcagaggt tcttctcgag gtacggcgaa 420
 gtgatcgatt gcgtcgcatt aagaacagcg agtcggcagg tcgcgcggct tcggcttcgt 480
 cacatttgnc gatccctcga acgtcacgct gtctgcagaa tggccgactc cctggcgga 540
 gacttagatc aaacctgcac ccgcgccctc agaccaaacg ggcgagctcc caagttcttg 600
 cggctgcac acgngngaac cgctagtgtc tcgcntacga aagttgagtg cnttgcnacg 660

<210> 1533
 <211> 669
 <212> DNA
 <213> Ctenocephalides felis

<400> 1533
 cacatattca agttgattca attcagcaaa gattattaca aaaagttgat ggtgtattag 60
 cagtacatga atttcatgtg tggcagttag ctggagatcg tatcattgcc tctgctcaca 120
 taaggtgtag aaatttatca gagtacatga aaattgcaga aagagttaag gaattctttc 180

ataatgaggg aattcattct actacaatac aaccagaatt tgtagaacta agaagtttat 240
 tagagccttc acgagatatg gagcaacat gtgctctaga ttgcccaatt actgatgtac 300
 catgtgctca agctacttgt tgtggaactt ccaaacccaga tagagatacc ccatcaccag 360
 cggcctcacc ttttatgtgc aggcaacgag gagcaggtca acgagttcaa ggtggttctt 420
 caggtccaaa cactggtgat ctagaaagt gtcatgtta ggtggacatc caaccactca 480
 gttgttgcaa ttgcctctgg tctaattgtg ctgtccaaat caaataaaga atcttgtgct 540
 gcacacatta tagcgcaaag tccctgccat cagttgctga tattctatat gcaaattttt 600
 ataagaatag atggaattat gcagggagga nangtcatat gataattatt atcattatgt 660
 ggactggat 669

<210> 1534

<211> 546

<212> DNA

<213> Ctenocephalides felis

<400> 1534

cttgtnttct gaagcaataa tottggttaa tgctttgggt tgtagcaaag atcctgatat 60
 ttttaaggagc tacttgaaa aaactgtaga acctgattcg aaaatcagag atcaagataa 120
 attccgtgct atgtattctg taatcagaca aggaagtgat ggagtgcaca ttgcattaga 180
 atttatgcgt aataaattgc caaaaatgat tgaacaatat acaagcttga atgcgctcaa 240
 aaaagtttct gaaactgtag gcgcagcaat ttcaaacgaa aaacaagaag aactgcttcg 300
 tgaaattatt gctaaatata attctacatt ttcggtattc ctaatgcaag gtgcaaaaaac 360
 tgcttttagat gccatggaag ataataaaac ttggagagat aaaaatttag ctactgtgac 420
 aaggtgggtt gaaaaacagc ctgaagttta tctaataat gcaacaaaac tagtccaaag 480
 tatttattat tacttgattg tattcaatat tgattatatt taatatatac atcagntnctn 540
 gaaaaa 546

<210> 1535

<211> 662

<212> DNA

<213> Ctenocephalides felis

<400> 1535

aagccgtggt agtttcgctg tatgaggaac ctattcagcc tcaacaagct gcttctgtcg 60
 tggagaaact tgggtgactac ctcataactt gcggctacta aatgtgaaac actggagtgg 120
 ccccttatta atttttaaga aaactataat aattataatt acgattaatg aataaattta 180
 aacaatgaag accggccagc aaaaaggagc agaatttttt tctcatgcct cctgcaatgc 240
 agtaaaatat tttgtgccat tttgtgcct ttgttcccg tgaccttttt ttctcagaa 300
 gggacacctg gagtgtactg gcaaaatcga ggacattagt ttaaactatt gtattataaa 360
 accgtgcgga cggcaaaatg aataaaaaat ctactacga ttaaatttgt attaatttcg 420
 atgtgaggtt atogacttgt ggatttaaat atactttctc ctttaataaa actcgtgctt 480
 ttgcaattta tgatttgcta ttattagcta ttgatgnata aatctgtatg aattttgatc 540
 cctcaataaa gaatttatat agtgactagc totcagtttg aatttattat atcgtattgt 600
 gcaaagccga ccatagttgc gactgactcn cgttctnttg tgctgacttg tattgctatn 660
 ct 662

<210> 1536
 <211> 668
 <212> DNA
 <213> Ctenocephalides felis

<400> 1536
 gaaatatttta cctacattag ctttgccaga tggatcccat aattttacgg aagattctgt 60
 attttttcat ttaccaggat tacaaaagga tgaacagact atttttgagg tatcatgtta 120
 tagacaatta ccagtgaggaga aattagttaa tataccttct gatgtaactc gcagcactgt 180
 tcaaaaatca gtttgtgttc taagcacctt acctttatat ggtcacattg agataaaact 240
 tgcattaata gcacatgcat tttttgaaca aggcgacttc agccaaacca agatattgca 300
 ggatgcatat cataatatga accaatgttt tggctcaaat gaaatttttag aaaaaataac 360
 tataggatta agtgtcagag atttagtggt gaggtggcgt cataaaatat tagttttatt 420
 taaattaata ttattggaaa aaaagggtgc atatttggtt caccagtaag gccattatgt 480
 ctagccctat taacttatta tctcttcac caatattata gacaaaggat tattgagtcg 540
 gcaatcagga cacttntata aaagaaaatt ctagtatatg caatcagata tatcatgcgg 600
 aaacagaatt aatatctctg atctaataca aatatgaatg tggaaagttt tgagatatct 660
 aaatgctg 668

<210> 1537
 <211> 620
 <212> DNA
 <213> Ctenocephalides felis

<400> 1537
 atcaacttgg attttgtcgg ttaattccga aatcgaaaaa gtttttaagt gcaaaacatt 60
 taactgtgac atcagtttgt aatgtatctg ggaaggaaat gagatctgta aatccgattg 120
 aaaggtttcc tccttatgac tataagaaga aaggatacgg atttatcaat gcgttttttg 180
 attacacaac taagagattc aatgataaca caaaggttat tacagtggaa ggtccaccag 240
 ctggttgcaa aactgcattt gctaaagctt tggccgaaga tttagatatg aaatactttc 300
 cagctgttac tatggatcac tactatatta atgaatatgg gtatgatctc agacaacttg 360
 atgataaatt acctgaatca tgtaaaagca tcgattttga taaatttcat aaagatccgc 420
 ataatagaaa tgtagcaaca atgcaaattg tgttatataat gaaaaaatat gaacaatatc 480
 ttgcggtctc tgccatttat taaatctgga caaggagtta ttttagagag acttgtaactc 540
 tgtttgtttt ctagaacctg gctagctggt tgttcgcagg actcgtcgat atttgaatag 600
 agcacacatc cagatgagca 620

<210> 1538
 <211> 557
 <212> DNA
 <213> Ctenocephalides felis

<400> 1538
 gtcattcact ttttacgagt tottttagtgt cctaatttat taataagtat cagaatgggtg 60
 ccgaaaacaa aagtatttgt tggaagcttg ccgccaggct ccaagcctga agaattacgt 120

cgtttggttcg aagcttacgg tgttgtaaca gaatgtgata ttatgaatcg ttgtggcttt 180
gtacatatgc agaccgaaga gatggctttt agcgcgattc aagcgttgaa taatactaca 240
tttaaatggg ccacgataag tgtcgaaagg ggccgcatca aggaacgcgg atcagggtgg 300
ggtcgtggag gcggtggccg cggcggtcga ggatttgag gacgaggagg tggatgaat 360
cgtagtggg gaggacctg gggatgcgt aatgggtggg gcccattggg aggtggcatg 420
cgtcgtggag gcggtggccc aggacctatg cgtgggtggg gccgtgacat gaatcgtgga 480
caccctattc tngtgatggg ggcgtggagg agatttggtg gcgagggctg gacctatgcc 540
aatggttgn cgcgga 557

<210> 1539

<211> 556

<212> DNA

<213> Ctenocephalides felis

<400> 1539

gcgtgcctta cctccgagct gttgttactt gttcattttc gccggtttgc gttcgaggaa 60
atthttgtttt cggacgcacg tgagcggtaa cgagtcctgc aaagatgtat ataaaattct 120
gtttattggc attcgtggcg gctgaactaa tgttaatgtt agttgaggcc aatgttattc 180
ctggtgaaga agaaaagagc gatggattcg agctgctcat tctgcataac aacgacatgc 240
acgctcgggtt cgagcaaacg gcggcacgca gcggccctg cgtagacgga gaacgatgtt 300
atgggggctt cggccgggtt gcacatttag tacgggaagc tcgcaagaat gaatctaacg 360
gcggccctcc tgtgctgtac ttgaacgctg gcgatcatat caaggaactc cttggtacac 420
gctttacaag tggaacatat cttatatgat gtaaacgaac tcgctccaga tgccatgtcg 480
tggaataac gagttcgaca cgggtgtcca ggttgctcca tttctggaaa atgtgaaatt 540
tcagtgtagc tctacc 556

<210> 1540

<211> 620

<212> DNA

<213> Ctenocephalides felis

<400> 1540

cctacttaca aattaacgta cttcgacctc aaaggaatag gagagccttt gagacttcta 60
ctaagctatg ggaacataaa attcgaagat gtccgagtgt catttgaaga atggcctgca 120
cttaaaccac agatgccatt tgggtgaatg ccggtattgg aggtcgacgg aaaggaactg 180
caccagagtt tggcactttc gcgctatttg ggaaaacaat tcgggctcgg gggcaaaaat 240
ctaattggagg agttggaaat tgactcaata gtcgataccc tgaacgattt cagatataaa 300
ttgacgatgg cctattggga acaagatgcg gctgtaaagg agaaaaaat gaaagaagta 360
cacgatacac tcatccatt ttatacagaa aaacttgata aaatagcgaa ggctaataat 420
ggcatttagc tcttggaaga ctaacttggg ccgctttgtt tcgaggagt atcgaaatata 480
tgagtttcat atctggaaca gatttccttg gaaattgcag gattcaagag tgctttaata 540
tgtgcaattg ccgacgtgaa ggaatggctg caagaggcaa aactgttgta tgtcatttgg 600
gaatttaaat aacattatac 620

<210> 1541

<211> 620
 <212> DNA
 <213> Ctenocephalides felis

<400> 1541
 atttgaatcc tcttatcgat tactaatctt ttgtacagtt taatatttat tatcaaggcc 60
 ttgtacgccca gtgtgtgtaa aggtctcttc agtcgacgac agaggataga agtcagagga 120
 catttataat acgcagtttt taagtttttt ctggtgaatt tgaatatatt tgaagaaaat 180
 gaagagggttt ttggttgctt tggcggtttt ggtggtcgtt gctgaggcta agctgtcatg 240
 ttcgagtaca aaagcctcga tccccgaaga atggatcgac atgacagccc agtgcacgag 300
 gagcatgagg aaccagatcc aagaagaact gagcgcttcg atgcaatact tggccatggg 360
 ggcgcatctc tcaagagaca ctgtcaacag gccaggattt gctgagatgt tcttcaaatac 420
 ggcaagcgaa gagagggaac atgcatgaa actcatgtct tacttgatga tgagaggaga 480
 actgcccaga ggctgcagga cttgacagaa caccactgtc caatcacact tggctgtggt 540
 tgagtgtctt gaagatctct gaatggagct tcgtccagaa ataacatgtg acaaagcttg 600
 cagacatatg gactatgata 620

<210> 1542
 <211> 591
 <212> DNA
 <213> Ctenocephalides felis

<400> 1542
 aagaagatca agaagaagaa ggcaaaagaa gagtctggag atgccccagc cgctgaagcc 60
 gcaccagctc cagctgcagc ccccgccgcc agcgaacgcc aatcatccag gggatccgc 120
 aaagccgtca agcgagcgg atctaactgt ttctccatgt tctcacaaaa gcaggtagct 180
 gaattcaaag aagccttcca gctaattgac cagcagaaag atggtatcat tggaaagaac 240
 gatcttcgtg ccactttcga cgaattgggc cgtttggtac aagagaaaga actcgacgac 300
 atgatcggtg aggcctcagg accaatcaac ttcacccaat tgttgacctt gttcgccaac 360
 cgcattgtct gatcagggtg tactgatgat gatgatgttg tcatcaacgc cttcaagacc 420
 ttcgacaacg acggcaaaat cgacagtgc aggttacgtc atgccctcat gactggggag 480
 ataaattcac tgccaagaag tgtgacgctc gaccaatggt catgccataa gcttcattgt 540
 cccagaacta tccaatgtgc tgcgtgcgag aaacaanagn gngatataga a 591

<210> 1543
 <211> 554
 <212> DNA
 <213> Ctenocephalides felis

<400> 1543
 gcaactttgg gtctcatggt tttccaacag ttgtctggaa tcaatgctgt gatctttctac 60
 agcgtgtcca tatttaaatt agcaggaagt gacctggacc ctgcggtgtc ttcatcatc 120
 atcgagcag tgcaagtggg gatgagtcta gctgctattg gattggtaga gaaatttggg 180
 cggaaaactt tgctaattgat cagttccacg gttatgggaa tctgtttggc agctttgggg 240
 tattacttca ggtgcaaac atcaggcgaa gacgtcacct ctctgggctg gcttcctctg 300
 tctagcctgg ttttgttcat cgtggccttt tgcatagcct atgggcccac tccctggatg 360

gtcatgggtg agatttttctc tgcgacgtta aaggagctgc ttgcagccta acagtcacgc 420
cagctgggtcc ctgcgtctttc tggctactaa agtattcccc acatgagggg gacttttagga 480
ggagatgtac cttttggatc ttcaactttca tgatatcgta cactgttttcg tgtcttctgg 540
tgccgaacaa agat 554

<210> 1544

<211> 604

<212> DNA

<213> Ctenocephalides felis

<400> 1544

aagattacct agacttggaa caagaattcg acctaataaa tctaaacagc aaggtaataa 60
ggaatctacg gaagtgcaat ctcaagttga tgctgataaa gtaggcgaac aaccagcaga 120
gaatgtgggt gagcaaagtg ccgaaacaaa agctattgcc gaagaagatg atgttaagga 180
tgcattgggga tgctgattca agcagtgaag aggaaagcac aactgaaaca ccagcagtaa 240
ctgcaaagtc tgaaacaaaa gtggatcaat ctgcagaaag taaaaaggaa gaaacttctt 300
cagaagaaga gtctgaagaa gaaagtgatt ctgagtcaga atctgaaagt agcgaagaca 360
gtgataatag aactgatgca gaaaagaaac gagaaaaggc tctccagaga atacaaaaac 420
gcagaattga tgcagaacag aataaatcat tagacaaact gagagctgcg gtgggtgtgt 480
gttgggacat gtagatctgg aaaacaaaaa ttttgcaata ctcnacaaat gtcaagatgg 540
tgaantgtgg tttctcacca aatgtgctca aatgtcatag aaacataagg acagtaaatt 600
gtaa 604

<210> 1545

<211> 608

<212> DNA

<213> Ctenocephalides felis

<400> 1545

gccntttttc gatcaattcg tattagactt tttgataaaa aatgctgtct aaagcttcgc 60
ttttggccaa ggtatcccg ccactgactg tggcagtgcg aacaacatcc caggctgcaa 120
catgccctgc tcctacaaag gtagaagaag ccgatagtgc tgaaagagat ttgggtcaact 180
tccaaggcc aacacgtttg gaacattcac cttaaagttcg ctttggattc attccagact 240
catggtttga atttttctat gagaagaccg gtgttactgg accttacatg tttggaactg 300
gtttaattac ttacttatgt tcaaaggaaa tttacgttat ggagcatgaa ttctatactg 360
gtatttcatt ggggtattatc tgtctctatg ccactaaaaa gttgggtcca catattgcaa 420
aatacttggg caaagaagtt gatgcctatg ccgatgaatg gaattcaggt cgtgtagaag 480
aagttaaaag ttaccaagat gccattgaag gagaaaagtt ggacaatgga gactgaaggc 540
aacttatgtt gatggatgca aacgtgaaat gtgcttgac ttgaacacta caggaccgcc 600
tgaaggta 608

<210> 1546

<211> 595

<212> DNA

<213> Ctenocephalides felis

<400> 1546

```

agacntacga gcaccaagtg gacaagacac acagtggaca aacagtgaaa ttgttgattt 60
gattgtatca gtgatagcca gtgatataac aatatttgtt taaaaaatga tgacgccgac 120
cgaaattagc aatttgaaaa aagtgaagtt ggagaatttt tgggacgagg tcgatcccaa 180
aaacatatcg cctgagtatc caaaaaatga aatccaggat tttttcagcg gcggaagcgt 240
cttcataacc ggcggtaccg gatttttggg aaaattattg atagaaaaaa tactgaggac 300
atgtcccgat ttgtcaagaa tctacatctt ggtccgagac aaaaaaggga aagatgcaaa 360
aaatagatta aaagatatgt taaatgatgt ggtattccag cgattaaaga aagagagtcc 420
gtggcccaac aaaaattgga ggttgttatg gagatgttgg caagcccgat ttagggttgc 480
ggaagtgata gaaaaatata caggatatgc aacagttata ttacgtaca ncctgcaatt 540
tcacgaccat aaaaactcag ttgcataatg taagggcant agagtgttga actgc 595

```

<210> 1547

<211> 595

<212> DNA

<213> Ctenocephalides felis

<400> 1547

```

atcntatcgg tgtgtttata tccagaagct ccgncaactt gttacaattg aaacaagtat 60
ggatcatgtc ggtgttccaa ttcacaaacg ttttgggtgt totattccaa gttttgtatg 120
ggtacattcc taatatcttg attgtttttg ccatcgtttt atgggaagga cttctaggag 180
gtgggtgctta tgtcaacacc ttctacagga tgagccatga gattccaatg gaaaaacaga 240
agttctctat gtcaattact gctattgtct atagtctggg aatagccttg gctggatgga 300
tagctatgcc aacacataat gccttgtgtg ctttgcctaa accaacttaa gtgaataaaa 360
tttgacaaa tccaacttta ggtggatgaa attaaagttt agttgtttgc gagtgcaagt 420
gtagataatt gaaccagtga aatagttttt aacgtaaaat ttctatcaga aaattatcat 480
tttaaggaac attgtggata ataaaacctt agcttaaatt aaataccac ttataaacta 540
atatcgagta ttctctatta aatcaatcga accgtcatgt gaatcgaata tttga 595

```

<210> 1548

<211> 653

<212> DNA

<213> Ctenocephalides felis

<400> 1548

```

gaanncaata gaagacctct agtaatgggg tcagttggac cttatggagc acatctgcac 60
gacgggtcag aatacagtgg ctcttatgca aaaacgatca cgaaagagga aatccaagaa 120
tggcatagac caagaataga agctttaata aacgcagggt tagacggatt agcaattgaa 180
actattccat gtcagttgga agctgaagcc ctagtgtgaac taatagttaa tgagtatccc 240
ggcacaaaag catggcttag ttttcaatgt caggatgaat ctctgtctgc ccacggcgag 300
ttattccgcg acgcggcctt gagctgctgg gagctggcaa gggagtccca atgtttactc 360
gctgttgggg tcaattgcgt tcatcccaaa tacgccgtcg gtctctgcaa atccctcaat 420
agggatcaga tgcccaaat accgtcgtgt tatccacag tggcgaaaat tacaccgcc 480
gaagggtgga aagataagac cgtgtgttct gtccaagata cgtcagttct ggttggatca 540
ggaccctttt anggaggatg tgcgtctgtg caggcataga atntagaaat tggatcgtgg 600

```

atataacgga ttaataatTT aataaataat tnttacgaat ttntataatg tgg 653

<210> 1549

<211> 553

<212> DNA

<213> Ctenocephalides felis

<400> 1549

ctcgttcact gcatttatca gcaatggctc agattaaggt aggcgataaa attccgtcgg 60
tagacttatt tgaagacact ccagctaaca aagtgaatat tgcaaatctc gctgcaggaa 120
aaaaagttgt cttattcgct gttcctggcg ccttcactcc aggatgttct aagactcatg 180
tacctggcta tgttgcaaag gctgaagaat taaaaaagag tggaattgct gaaattcttt 240
gcgtctctgt taatgatcct tttgttatga gtgcttgggg taaggatcag cagagcaatg 300
gaaaggtaag aatgcttgca gatccaagt gtacattcac aaaagaactt ggattgggag 360
ttgaattgcg cccttaggag gtttacgttc taagagatct ctatggtgat agacaatggt 420
gtcgtatcag aattgaatgt agaaccagat ggtctggact ttctgttcc ttagctgaca 480
aacttaaagt ttagaatata gtaattattg aaataagagt aataaatata atgtaatatt 540
aaaaaaaaaaa aaa 553

<210> 1550

<211> 661

<212> DNA

<213> Ctenocephalides felis

<400> 1550

gaacntcgtg ctgatagcgc ggcggttccg tcaccaattc ataattccgg acttccaagg 60
attcgcaag gacttgagg aagtgtactg gaagtgaag ggcaataacg atggcaagg 120
gggcagaccg tcgcgcgttg tgaaccgga cgacgatccc gccggcgaaa atgttgctag 180
ctacattcca cagcttggt cgcataacc ctgatttttg ggggtgtgagc gtctgcacca 240
ttgacggaca aaggttgtcg attggagatt gcaatgtgcc atttacttta caatcttgca 300
gtaaacctgt gacatatgcc atagcattgg aaaagctagg ccaggcgacg gttcatcaat 360
atgtcgttca agaaccaagt ggtagaaact ttaatgaact cgtactagat tataataaaa 420
gaccgcataa tcctatgata aacgctggag cgatattggt tgtcgtattg aaaacttagt 480
caaacctgag atgactctac tgagaagtgc gactatatga ccacatatTT aagagattgg 540
tggtggaaga gtctcggtc aacaaccggt gtcttgcgga cccgaagccg cgatagaata 600
cctttggttt actgaggaac cagtctnccg gtaactaat acggatctgc ttatttatgt 660
g 661

<210> 1551

<211> 671

<212> DNA

<213> Ctenocephalides felis

<400> 1551

gcattattag ctaacgatct tcataatata tttgtcaaca gtaatctaac gcatttgaga 60

```

aaacttcact tggaacaaaa tgaaatatta aattttggag acaaaagagt tttctgcat 120
ttacctagtc tgcgagattt gcatttgggt gataattatt tatcagagat agactttaac 180
tttttgtgtc ttaagaattt acggtttctt gatttggaaac ggaataaaat cgaatacttc 240
aagaagcgtg acctgctcac cctggaccag gtgaatgctg ctggccgaga agagcagttg 300
gtcatogatg ttggcggcaa ccctttccga tgtgattgca ttgttagcga gttttattca 360
tggtgtgtcc gaactaatgt taccgtcagg aacaaggagt ctttacgggtg tcatcgcgcc 420
caaaagcatg gcggggaagc attgatoagc ctatccgtcg ataaatgtcg aaaagctcaa 480
tctgtagtgc acgatcgagt aaaatatcta ccgtgacttt atgctgatta ttttaatagt 540
cattttttctg gactgtcgcg tctggctaca tgagcagaga taagttgaaa tagcattact 600
ctgtgataga accgttttaa aagtcaattn ccgatccgaa catgacagaa gttatatagg 660
aattgtgcaa t 671

```

<210> 1552

<211> 611

<212> DNA

<213> Ctenocephalides felis

<400> 1552

```

cacntttacc atcgtcgaaa gttgaagtca ccgtnacagaa gttaaaggat gatcagaaac 60
tgaagagtca gcaggagagt gcggagaatg tttccacgggt tacggctctc aaacctgcag 120
atagtccga gataacagtt gtgaagaaaa cgctgaaaca gaaaataata catgaacttc 180
tacattacta ccatggtttt cgacttcttt tcatcgattt aaatgtatcc agaaaattaa 240
tatggcgagt tctgaatgga aaccagttga ccaggaggga acatagattg ctagtggaga 300
ccactgctga tcttttcaga cttctgccat tttctgtgtt cattattgtg ccttttatgg 360
aattactgct gcagttgcc ttaactatt cccaggaatg ttgcatcgac cttcaaactg 420
cccagagaga gaggataaat tgaacaaaag tttgaaggta aaactagaga tggctaaatt 480
tctgacggaa acattagacg acatgactct acacacaaag atcacagatc agaattggct 540
aaagagtcca attgggttac gaaatgagac agctgcctca gcnntacgaa gaatcatgaa 600
attcaaaatg t 611

```

<210> 1553

<211> 566

<212> DNA

<213> Ctenocephalides felis

<400> 1553

```

ctgntngaca agaattgatt gacagattta atgangatga agaaattttt atatttttat 60
tatctacaag agcagggtggg ctaggaatta atttaactgc agctgatact gtgattatac 120
atgatattga cttaaatcca tacaatgata aacaagccga agacagatgc cacagaatgg 180
gccaaaagcg gccagtaact atttatagat taattagtaa aggaactatt gaagagggta 240
tgcttcaagt tgctagagaa aaacttaatt tggagagaga agtcaccact aacacggaga 300
atgatcctca agaagtaaaa aatgttgtgc gattactcac actagcgctg ggcgtcgatt 360
caaataaagc tgccaatctt ttaactccat cgcgagaaaa tcggaatcct aattgcaaaa 420
gocgctatta tttagcacac attatgaatt ttgatctttt aaatttatta gttaattgat 480
gattatttaa aaatataggt atttttatat aatttatgaa ttactgcagc gccaaataaaa 540
tccgtttact ctaaaaaaaaa aaaaaa 566

```

<210> 1554
 <211> 585
 <212> DNA
 <213> Ctenocephalides felis

<400> 1554
 actttnctcc atgcaagcct ctcttgaagc cgaagccaag ggcaaggctg aggctttacg 60
 catgaagaag aagttggaag cggacatcaa cgagcttgaa attgctctgg accatgctaa 120
 caaggctaac gccgaggccc agaagaacat caagcggttac caacaacaac ttaaggatgt 180
 acaaaccgcc ttgaggaaga acaacgtgca cgtgatgatg cccgtgaaca acttggcatt 240
 tctgaacgcc gtgccaatgc tctccaaaac gaattggaag aatcccgtac cttattggag 300
 caagccgaca gaggccgccg ccaagccgaa caagaattgg gagatgctca cgagcaattg 360
 aacgaacttt ccgcacaaaa cgcttcagta tctgctgcaa gaggaaattg gaatccgaat 420
 tgcaaacttt gcattctgac ttggacgaac tctcaatgaa gccaagactc agaagaaaaa 480
 gcaagaaggc atggttgacg cagctagggtt ggtgtgaact ccgctgaca agacntgccc 540
 aaaccaaga gaactcagaa aggtcttgaa cacaaataag aattg 585

<210> 1555
 <211> 612
 <212> DNA
 <213> Ctenocephalides felis

<400> 1555
 agacngctgt ttttgtgttc aaaaagcagt aaantataga aaaaaaaac ttattactag 60
 tgcacattaa caaaaataag cagaacaact attaaaaata tgttttccat gtcaaacttt 120
 ttctaaaaac cattcaatgc atagaaatgt aattttttaa atcaatagta tgatttttta 180
 aaatatattg ttttatacca ggagtggact actgaatttc tgcaagtgtt ctatggctct 240
 caatgatcta ggggtacaaag ctgttggtat acgaatagac tctggtgatt tagcatatct 300
 ctcagttctg gccagagaaa catttgagag gatagcagag aaatacaaca ttccttggtt 360
 tgcaagactc atgataattg catcaaata tatcaatgaa gacacaatac tcagtctcaa 420
 tgaacaggga cacaaaatag attgttttgg aattgggacg catttagtta catgtcaaag 480
 gcaccagcac ttgttgtgtc tacaaaatgg tagaaataaa tggacacctc gaataaactc 540
 agccagatgt gctaagtaca tgccagtcgn agatgcctat cgttatatgg nagatggcat 600
 gccctatgct gc 612

<210> 1556
 <211> 613
 <212> DNA
 <213> Ctenocephalides felis

<400> 1556
 gtggttcaaa gataatccaa gatgggtaag ggaaataata tgatccctaa tgggcacttc 60
 caciaagatt ggcaacgttt tgtgaaaact tggtttaacc agcccgaag gaaaattcga 120
 agacgtcaaa acaggattaa aaaagctcgt gccttggttc ctcgtcctgc tgctgggccc 180

ctcagaccaa ttgtgcattg cccacagtg cgataccaca ctaaggttcg agctggcaga 240
 ggttttaccc tcgaagaaat caggggagca ggtttgaatg caggatttgc tcgctcgatt 300
 ggcattgcat tagatgttag acgtcgtaat aaatctgtag aatctttaca acagaatata 360
 caaagattaa aggaatacag atctaaattg atcttgttcc caagagggtg aaagaaattg 420
 cataaggggtg aagcaactga agaggaatgc aagggttgc atcaattaga aggcgtcgtg 480
 atgccaatga aacaaacttc agttaaatct aaagtcgtgt cattctgaag atgaaaagaa 540
 attctagctt tcccacttaa gaaaggtcgt ctgtcagcgc tgggtggttc gtgaaaagga 600
 gtaaagatca ntg 613

<210> 1557

<211> 659

<212> DNA

<213> Ctenocephalides felis

<400> 1557

aatnntattc tgaatactat gttcgatttt agcgttttcc cggcgagctt gatataatat 60
 taattgtttg gagtaaaaaac aacaaatttt cgaggattaa tttatacaaa aaataattaa 120
 aatgaaatta gttagggtttc ttatgaaatt atcacacgaa acagtgtcga tagaattgaa 180
 aaatggaact caagttaatg gaacaataac tggcgtggat gttgccatga atacgcattt 240
 gaaagctgtc aaaatgacta ttaaagatcg agatccagta tttcttgata ctataagttt 300
 gagagggaat aatattaggt actatattct cccagatagt ttaccattgg agaccctttt 360
 gatagatgat acaoccaaag ccaaagctag aaagaaggaa gcagctcgag gtggaataacg 420
 aggaaggggt cgtggctcgtg gtggcccaga ggcggtcgtg gaggtggtag gggacgtgga 480
 cgaagataat aatatttttg attgtaagct attataatca ttgaacattg gtcacatagga 540
 aggctatcaa tttgatgtat aatgtatttg atcaacaaga atttangttg atccattttt 600
 aaccaatttt nttgtggcta atcagtttga gtcgatcata ttctgatgtt atatgaaga 659

<210> 1558

<211> 564

<212> DNA

<213> Ctenocephalides felis

<400> 1558

gtactttgct ttcatttttt tcattatttt caagagcaat ggctgaagca cgcgaaagaa 60
 ctttcattat ggtgaaaccc gatggcgtcc aaaggggttt ggtaggaaaa atcatcaaac 120
 gattcgaaag ctaaagggat tcaaacttgt agcaatgaaa ttcattgtggc catcagagga 180
 gctcttgaag aaacactatg ccgatntttc ttgccagacc ttnttttctt ggactagtta 240
 aatacatgag ctctggccct gttgtcccca tggctctgga aggcactaat gttgnaaaaa 300
 ctggtccgtg ttatgttagg agctacaaat ccagctgact cgaccccagg aaccatccga 360
 ggagatctct gtgtggaagt tgccgcaata ttctccatgg atcagatggt gtagaaagt 420
 ccaagaagga aattgcttat ggtcactgaa aaggaagtaa tctctgacct cagctcatga 480
 atcatggttt atgaataatg gtgataattt ngattttggn taanctgatt aaaaaanta 540
 tgtgaataaa aaaaanaaaaa aaaa 564

<210> 1559

<211> 617
 <212> DNA
 <213> Ctenocephalides felis

<400> 1559
 gtggntttca taggatgctc ttgggggtttc cccagtgggt ccaccaatgt aaataatcga 60
 atcgttggag gcaaagacac cacaattcaa gaacatcctt accaagtatc aattttgtac 120
 aatgatgaat atcacagctg tggaggttct ttgatttctg aaaaatgggt ttgacagcc 180
 gggcattgca tgcattcttt caaattctac atccgtgtgg gaagttctct tgaaggcgaa 240
 ggtggagctg tgcacagcgc tctaaaacaa tatcgacatg aaaagtttga tgcaaaaact 300
 gtagattatg attatggatt aattgagtta gacacaccgg tacaacttag tgaaaatgta 360
 aaattagtca aattggctga acctgggtgt gaacttgaag aaggaactct actaaatgtc 420
 acgggatggg gtagccgcga tccagcgcac tctcaaatag taactgacca tatgtatccc 480
 aagaagttgc aaaaatacat tcagacaggt gatctcccat atatgttctg tntggtaa 540
 gcangannga agactgcatg gnacttggtg gcngtgatca atggatccat tggatgggtc 600
 tgagcttggtg gcctacc 617

<210> 1560
 <211> 659
 <212> DNA
 <213> Ctenocephalides felis

<400> 1560
 cttanatgtg tggaatttgt gactgtgac ctgcacactt tggaagacat tgcgaatgtt 60
 ctgctacaga tgtaacatca caottagatt tggcgatggg atgtagaagg gataatacca 120
 ccacagttga ttgctcagga aaaggaactt gtgtatgtgg tgtttgtgaa tgcgaacagc 180
 gtgccaatat cgaagaacaa atctccggca aatattgcga atgcgataac ttctcctgcg 240
 accgtcataa tggatattta tgctctggtc cagaacatgg tgtttgtgtc tgcggtcagt 300
 gcgactgtct gcccggtctg accggccctg cttgcgattg tagagatacc aatgctacat 360
 gtatcgctcc aggatccaca ggcgaagaaa tgtgctctgg acacggagtt tgtgaatgcg 420
 gagtttgcaa gtgtgatgtt gctgaggatg gcagatatc aggaagatct gcgagaagtg 480
 tctacttgt cagccgtgca ggagttcaaa gaatgtgtta tgtgtcaaat gtataaaaact 540
 ggccctcaca gaagagaatg cggaattga catctccatc gtcaagatna gtgaactgtg 600
 aagtaagata cattatgtct ctccacgaaa catgccattn atctttntca caaaagcaa 659

<210> 1561
 <211> 662
 <212> DNA
 <213> Ctenocephalides felis

<400> 1561
 cggaancttt aaaaatgag tgctcctaca gtaacaattg cccagggcac tttatcagga 60
 aaggttctgg ttaatgaaaa tggaaaagag taccatgggt tttgtggaat tccatatgct 120
 gctgctccag ttggcaaatt acgtttcagg cctccacaaa aaccagaatc atggagtggg 180
 gttcgtcaag ccactgaaca aggcagtga tgttcacga aacatatgct tttgcaacac 240
 cctataggaa ccgaagattg tctctttgca aatgtctata ttcccaaac tgatgccaaa 300

aagcctcttc ctgtcatggt ttgggttcat ggaggaggtt ttgtcatggg atcaggaaat 360
actgacatgt atggctcctga ttatctcatg gactacgatg ttatcctggc accttcaact 420
atcgtctcgg agttctggga tttttgaatt tagatttgga agaattgtctg gaaatgtcgg 480
actaatggat caggttgctg ctctcaaatt gcaaaacaaa acattgcaag tttggtggtg 540
atcaaacaca ttctatcttg gagaatctgt gtggtgcagc tacattatta gttgctgac 600
tacagagggt gtccaaaagc atgncaagtg aggcttaaatt catgcttcac gcnactaag 660
an 662

<210> 1562

<211> 655

<212> DNA

<213> Ctenocephalides felis

<400> 1562

gaatntgcta ctttacaagc cgctattgaa gcaatcagtt caatgaacat gtttgaccta 60
ggaggccaat ttttaagagt gggacgtgct ataacgccgc cgaacgctct tatgggaccg 120
acaactggat ctatgatgcc gactgctgct gctggtgccg cagctgccgc cacagctaaa 180
attcaagcga tggatgcagt tgctagtaatt gctgtcgctt tggggctgcc gagtttgagt 240
tcttcaccta caattccgtt atcagtgccg acgatagcgg tgccgcccat cgcaacgata 300
acgccatcag ctcccgttgc tatatccggt gctgttaagt taccaggtgt cgtcataccg 360
cgcaggtgtc gtcgtacctc aagtcataca gcctccagga attgtgacgc cgacatcgca 420
accagttata attccagtat cagtattacc taattgtgaa tcttctccga cgatgatata 480
aacaagctca cctgcacaca gccgatcaca atactacaca gaacaatgaa gccagaatgg 540
ccaagaacnc acaagagact tnaaaaaact atagatgaac tgacccaact tacagacaag 600
aacatgtgct aaggnaaagn nncgcctatn tcaagntatg aagangatca ctnta 655

<210> 1563

<211> 651

<212> DNA

<213> Ctenocephalides felis

<400> 1563

ctnttcagat aattcttttt caccaaaaaa taatatctgt aatttacctc gtttaataatg 60
gctgcttcag caattccctt tattatcttc accgtccttt ggggtatagt ggggtgctgt 120
ttacctttta tagtgccaaa aggaccaaac agggggattg tgcaagtcgt tttgatattg 180
acagcagctt gttgctggct cttctggctc tgctgtctaca tggcccaaatt gaaccccta 240
ataggaccca aactacacca gaacacgatt ttattgatgg caagagaatg gggaaatcca 300
atcagcgatt tgtaatttag tcaaccaaca ttctgaata tcttctgata taaaatttca 360
tactgtgtga tgatgataaa tgaagataat atgatttaca tttcacataa atgtgtacat 420
ataattttta gaacaagtta ttaatttgct tgattgtata tagatatatt atgagaacta 480
ttcgtttag caaatatatg tgtcctggga gaaaaatnnn nnnnnnnnnn nntnnttnt 540
ntnnntnnnn tggggggggc cggcccatc centaaaggg ggttttaata ncggcgggtt 600
tnnccgggga tgggaaacct ggttnccaat antgcttgan antccenttn c 651

<210> 1564


```

aattcctggt tgcagaatgc cgaagaagat ctcacagatc ctgtcaggtg caactcgatt 240
gaggaaatcc gtgccctgag ggaggctcat gcacagttcc aggccttctt gtcgtctgca 300
caggctgatt ttgaagccct ggcagccctt gatcgccaaa tcaagacgtt caatgttggc 360
cgaatcctta cacctgggtc accatggagg ctctcgaaga cacctggagg aacttgcaga 420
agataattgc tgaacgtgat actgaacttg ctaaagaagc tcaacgacaa gacgaaaatg 480
ataaattgag gaaagagttt gcaggaccca tgctttcata atggtgccga gactagaact 540
caatgatgga aggtccggtt tntcgacaga attggagncc ttcnagaagg taaaaagttc 600
ngccaaagag tgttgagcga atgaaaatgg tntnctggag acttnttgna caattcnact 660
tc

```

<210> 1567

<211> 648

<212> DNA

<213> Ctenocephalides felis

<400> 1567

```

atTTTTTTtca tagttatgca tcctttatca ttaggattaa tactaattat ccaaacaatt 60
tgaacaagaa tatttattgg ttttaatttca aaaacattct gattntcata tattttattt 120
atttcattta ttggaggaat attaattcta tttatttata taacaagaat tccaaataact 180
gaatattttt ctttaaataat tnataaaact atttttatta ttttattatt aacattaaga 240
attattattt attataataa aaattttcta ttaattttta acaataattc catatttaat 300
gatttttaatt caaacttact tatatataat tttaatctaa ataaattata taattttcca 360
aataatttat taactattat attaattatt tattttattaa tttcattaat ttgngaggta 420
aaattcagat attttttatg gcctttacga aaaaatttta aaaaaaaaaa aaaaaaaaaa 480
tcgngggggg gccgggcca atgcctaag gggtcgggtc aatcctgggc gggttacacg 540
cggctgggaa cccgggttnc cacttatcgg ctgggncatc ccttngcagt gggatatagc 600
aaggcccccg cnccttcaaa gtgccgctga tggaagnaat ggagcgtn

```

<210> 1568

<211> 661

<212> DNA

<213> Ctenocephalides felis

<400> 1568

```

caggnttcca caacttgtca ttaatatctc ggtctcttca ctgagacggt aaaagaattt 60
caaatgggt tacttttatt gtatatcact tttatgcctg ttcactatag ttagctgtaa 120
taccggatta gatcctaaag gtccaaaagt tactcatgag gtatactttg acatcagcat 180
tggtgggtgaa cctgcaggcc cgtgttttga tcggcctttt cgggggcact gtacccaaaa 240
cagttgaaaa tttcgtagaa ttgtccaaga aacctaaagg tgaaggatac aaaggcagta 300
aattccacag ggtcatcaag gacttcatga ttcaagggtg tgacttcacc aggggagatg 360
gaactggagg ccgtcaattt atggagaacg ttttgctgat gaaaacttta agttgaagca 420
ttatgggtgct ggatgggttc catggcaaag gctggcaaag, acctatggat ctnaattttt 480
atcctacaaa ccctgctggt agatgacgtc cgttgattcg gaaagtatca aggaatggat 540
gtgngaggaa atgatcacat cacagattca aaacaacccc actgtgtgaa tttagacttg 600
ngtnactggt ntaacctcgg gggtagaagt cactaataaa gattntcttt gtatttttat 660
n

```

<210> 1569
 <211> 941
 <212> DNA
 <213> Ctenocephalides felis

<400> 1569
 gtcntttgcg ttgaaagctg aaacatttct atttttatct cgaattgcac aagcatttat 60
 ttagtaactt taattagtgt acagtattag caaacaaaat atgatgaaca ttcaaaaaat 120
 tgtaggagc ttaaaccgag gtggagttgc aagaatgtca actggacagt acggtgatgg 180
 tgctggcaaa ggaggtggtg gtggtggatc catccgtgaa gcaggtggat ctttcggcag 240
 aatggaagct gctagagaag aagaattctt ttataaacag caacaagccc aattgaagaa 300
 acttaaggaa caagcaatag atcagaaaac tttccatgag gaacaattaa aacttcacaa 360
 ggaggctttg gagagacatg aaaaacattt ggctgagctt aagaagtaaa ttgaagtffc 420
 atatatagca ttatgaaaat gttagacagt gatnaaaatt caaatatttg ntctattact 480
 gaattaataa acttgcatta agcttctata agttattagt tttctagcat cttaatatat 540
 tcattgncac tacatatagt tttaaattca ttgngtctat gcatgtattg gactaaatat 600
 tggaaataat ccataacaat ttttttngna aaaaaaaaaa aaaaaaactc ggnggggggg 660
 gcccggaccc caattcnccc tntaggggng tcnattacna atcactgggc cgcggtttta 720
 caacgtnnngn gactgggnaa accctggggg tancccaact tantcccttg gaaaacantc 780
 cccttttnnc aagtnggggt aaaaccnaaa aggcccnnc cattnccctt tccaacaatt 840
 tgccccctg aantggggaa tggcaattng aacctttttt tttttgtaaa attccgttaa 900
 nttttgtaaa ancntntttt ttaaccanan gccnnaaang g 941

<210> 1570
 <211> 931
 <212> DNA
 <213> Ctenocephalides felis

<400> 1570
 aagattttaga cctagacgat gtaatcctca taggaaagac acaaacacaa tacatttttaa 60
 taattttacat cgaaaaagta agtttttatag aacggccgct tacactttac acaaccaaaa 120
 ttaatctgct gaagaatttt acgaagacta attagtttta aatctacagt atggatgtgt 180
 tgaataggcc cgctcacgaa tttggaaatg atgaaacagt tgaaacttta tgggctatga 240
 aagccatgga tcatgttatt gtctatttta atgtacattt attaaaatat ttatcttcaa 300
 cttataggca atattcagta cagacgtgcc ttatttcaga tactttgctc tgtagacca 360
 aaattttctca aaatgtgccc ccaagatgaa attatctacc attgttttog tcaagaattt 420
 ccagatatgg atgttaaagt ctagatgaaa attcattaaa aggctataca ggaaaatgcc 480
 gatggagaga attttgtgaa cgattcaaac atatagaaga ttcagttttg gtccttaata 540
 cgcttagatt gcacattgga ttatagtcca gaaaatacta ttttagttnc aagagtcagt 600
 ttatgccata gaatctgctc gaaataaaga aggccttaat gactgnatca gaaaaaata 660
 tgctaatagta agtgatgtgc gagtaatgaa aatgtaaatc catagaaaat aattagcatg 720
 ggtatggtta aaaagtncat gaaaaaaaag nggggtttta tnttttttn tntttaataa 780
 angatttttt caaaaaaaa aannnnnnnn nnnnnncctt gggggggggc cggggcccaa 840
 ttccccctnt angngngngn ttttnaaatc actgggcggg gttttnaacg gngggaangg 900
 gaaaaccctg gggtacccaa ttaatnccctg n 931

<210> 1571
 <211> 942
 <212> DNA
 <213> Ctenocephalides felis

<400> 1571
 ttttaaaaaa aatgacgcgt ataatacata cgtcagccgt tttattatta gcattatttt 60
 acctctcgag ttgcaataat gcagaggcta cagaaaaaca aataccgatg acgaaaatca 120
 gtcaaaacct nggcggaccg acaatgaagt tcctttactg ttattcctgt gggttacagga 180
 aagtctttga agactacatc ggcatcatcc aacaaaagta ccccgaaatc aggatagacg 240
 gtgccaaacta cgacccccca ggccgtgtaca tgtacctagc aaagttccta agtctagcca 300
 aaatggcttt aatcatctgc gtcttgacca gagtcaatct attccgctac ctcggttag 360
 aagagcccac gtggtggacc tgggtgcctcg agaacaaaat gtactcctgc atgatgttct 420
 tcttcttggc aaacacgata gagggacagc tgggtgtcttc aggtgcgttt gagatttctt 480
 taaacgatgt ccggttggtc ccaagttgga aacgggaaga ataccttnac cccagagtt 540
 gttcagatta tagataatca tatgaatatg gttggctgnt aaagtogant ttaaaccgga 600
 gttttngaa atgaataatt atgggttaat aacaccgttt gntattttga atttttgggt 660
 aaaccaaach aaatngnaat tttttctagg gttggtttcc attccangga ttntaaatta 720
 aaacctgnaa ccttcnntan tatatatatt tgaagangng nttgatgnag aaattatttn 780
 attaccttta atggatattt aanaaaaaan gggggtataa attttanttt ttntttggga 840
 aaancnanat annanantnt ttatngnggg gggggncccg nccccatttn cctnaggng 900
 cnattttaat ttatnggcnn ngntttaaac ctggnggtng gg 942

<210> 1572
 <211> 918
 <212> DNA
 <213> Ctenocephalides felis

<400> 1572
 atgtnttcgg gcatttagtg ttttgaagta tcgtggcata aagcagattt aagttaatct 60
 gcttcattca atacacaaca tggtagggaa acccaacaag atgtatgttt ttaagcgaga 120
 tggccgcaag gaagaaattc attttgataa aatcacttca aggattcaaa agctatgtta 180
 cggattgaac atggattttg tagaccctgt ctcaataaca ttaaaagtca taaatggatt 240
 atatactgga gttacaactc aagaacttga taatctggcc gcagaaactg ctgctaccat 300
 gacaacaaat catgctgatt atgccgttct tgcagcacga atagctgttt caaacttgca 360
 caaagaaaca aagaaacaat tttcagatgt catggatgat ttgtcaatat gactaatgag 420
 tataactaaa agagatcacc aatgatagca gattatcatc ataaaataat aatggataat 480
 gcagatcgca ttaactctgc tattatttat gatagagaat tcagntacaa ttactttggg 540
 ttcagacatt ggagcgtctt atttantaaa aattatggga aaagtagttg gacnacccca 600
 catatgctaa tgcggttagct ntttggatc attggggaaa acnntgggtc ngcaattgat 660
 ccctttactt antttctgga aaaaatttta ctcatgccna gccacatttt ttgttgncc 720
 ccnccnanct caattatnaa gtggnntttc ttgctttcca naanaangtt ttganggggt 780
 ttgntcttta aaccaagngg ntttttattc naaaatgggg gnggggtttg gngaccctt 840
 tttggttttt gggaaaaacc ttctttgggg gacccaaggg atttttaagg gnttngtct 900
 tcnccggttt naaanaan 918

<210> 1573
 <211> 922
 <212> DNA
 <213> Ctenocephalides felis

<400> 1573
 ttattttgtga aataaattta ttataaaatg ttagatctat ttacaatatt tagtaaaggg 60
 ggcatagtgc tctggtgctt tcagagcact agccacatat ttgcaccatc tgtaaatgca 120
 cttattagaa gtgtcatatt gcaggagcga tctggaaaaa atacctacga ccacgattcc 180
 ttaacattgc aatataaatt agacaatgaa tttgagctgg tgtttgtggt tgcctttcag 240
 aaaattttgc aactgtcata cgttgataaa tttttaaatg atgtacattt agagttttaga 300
 gataagtata agaatgactt acaaaataaa aggtattttc aagaatttga ctttggtgct 360
 tgtttataaca gtattctgcg ggcggctgaa gaatggggtc ggactcaggc taagttacct 420
 aaacaaatgc gttcttttga agattctatg aaatctaaaa agacagttgc ttcaatgatt 480
 gaaagaaagg gcgagggaaa aaaagacccc agaagaatgg taaacaaaaa ngcaaaaatg 540
 gttggtttga tgaagaaaaa attaataactt aaactggtat tggaccgng ccaaccaata 600
 attccaaaag nggtgatcca atgattaatc atgccaaatc gatgggaact tgcnaaaaaa 660
 atgggggct nttaaaaaaa aaaaaaaaaac ttgngggggg gcccggnccc aattcccctn 720
 tagggaggcg antacaaata actggccgcg gtttanacgc gggaatggga aaacctggng 780
 ttncccannt aatngcttgg aganattccc ttttncaagt ggggtaaaaa caaaaggccc 840
 caccnatgcc ctttcnaaaa ttggccnct gaangggaaa ggnaaaatnt aacggtaant 900
 tttttaaaaa tccggtnaan tt 922

<210> 1574
 <211> 943
 <212> DNA
 <213> Ctenocephalides felis

<400> 1574
 attgtnatgtt atttagtttt taatgtcatc gcaaaatgat gattcaacgc ggtctgccgc 60
 tgcaacaat gtggagccta atgaacaga tgggttgtct tcagagcgcc cagaacaagg 120
 tcaatctgag agtagtatat caaacttgat gaaacatttt gctaacaaat taggttttaa 180
 tgaaaaagat gaaagtgatg aagatgaacc acaggtttta tcagaagtta caattgaggg 240
 tgtggttgaa tatattaaaa gtggaaaatg taaaaatata ataacaatgg ttggagcagg 300
 aatttctacg tcagccggta taccagattt tcgatcacca aactctggcc tttatgataa 360
 tttacaaaag tataacctgc ctgatccaca agctattttt gatattgatt acttttagtga 420
 aaatcccaag ccattttttt ccttagcaaa agagttatac cctggtaatt ttcggcctac 480
 aatttgccat tattttatta aactattgaa tgaaaagaaa ttggtattaa gacattatac 540
 tcagaatata gatacttttg agagagtatc tggattagat gaagataaat ggtagangct 600
 catggttcat ctacaaatca catgtatcgg tgnaggaaaag aatatnccct ggggtggatga 660
 aaaaaaatn tttntgatg agaattccac ttgnacatgc cggagaaaag ggtcaagcct 720
 ggatataccg tctttggnga aaatttgcca naaagggttca ttggctaata aaanaagact 780
 tcacccaaaag ngccttggtg aanaatcatg gganccgctt tgggtgtcaa acctttgctt 840
 ccttgatgg antgggattc ggaacntggc ctaaactttt gattaaatta aaaaaaangg 900
 ggggaanggg gntaaaagg tccaatggta ggtttnttaa ang 943

<210> 1577
 <211> 917
 <212> DNA
 <213> Ctenocephalides felis

<400> 1577
 tttattgcat caggcgacaa ccatcttttc atagtgcag agttcatgga aaacggttcc 60
 ttgagaagct ttctacacaa aaatagaaac agattgacca aaaccgatct tttagacttc 120
 tccaaacagg ttgcaagtgg tatgaagttt ttggaagagc gtatgtatgt ccatcgagat 180
 ttggctgccg ggaatattct ggtggacaag aaattcgggtg ccaagatttg cgattttggg 240
 ctcagcagga ttataaagga cgatatgtac aaatcgactg gttcagcatt tgctgtcaag 300
 tgggctgctc ccgaatctat agagtatagg aattttacgt ccaaactcga cgtttgaggt 360
 tttggaattg ttttgtatga aatctatacg ctgggcaagg aaccttacct ggaattgcag 420
 aagaacggcg aacttataga catgctgaga aatgggtccg gatgcggaaa ccggaattgg 480
 ccggagttga aatttacgaa ctcatgaccg atgttgggaa ttccccaaga atccagcccg 540
 acttttgccg aagtctacga actgatcaac gaagttacga aagtcgatta tccgaagccg 600
 aagtcgtcga agaactaaat taatgaatag ttgcnagtgt tggccatntc ttacctntaa 660
 aaactaatta ttttttattt tagtttgga aaaaaaaaaa aaaaaaactn nngggggggc 720
 ccgnacccaa ttccncccta nggggcccgn ntncattccc tggccggtgn ttnaaacgtc 780
 gggnttgggn aaaacctggn gttcccaact tantcgttg gagaaatccc nttttgnca 840
 ttngggtana aacnaaaagg ccccnccgtc ccttcccaaa tttggcnct naatgggnaa 900
 ngcaaattgt acctnt 917

<210> 1578
 <211> 939
 <212> DNA
 <213> Ctenocephalides felis

<400> 1578
 ttttaacgct cttataaaaag aaattgttaa atctattgaa atccttattc atcgggtgcct 60
 attttcggct taaagatggt tcaaaagaag cctaagaaga aggtcggaaa gaaagtggca 120
 gccgccccct tggctgtgaa gaagtctgaa cccaaaaagt tggttaatcc tttgttcgag 180
 aagaggacaa ggaacttttg aatcggtcag gatatccagc caaccagaga cttatccaga 240
 tgcgtgagat ggcccaaata catcagaatc caacgccaaa agagcgtttt gcagaagcgt 300
 ttgaaggtcc ctccaccaat caaccagttc acgcagactt tggacaaaca aacagctaca 360
 cagttgttca agattttaga aaagtacagg ccggagactg ctattgctaa aaaggcacgt 420
 ttgcaagcac gtgctgaagc taaagcccaa gggaagggaag acacacctac aaaacgtcca 480
 aatgttgtac gttctggcac aaacactgtc acaaaacttg ttgaacaaaa gaaggccact 540
 tgttgtgatt gcccatgatg tggacccctt tgagtgggtg ttgttcatgc cagccctatg 600
 ccgcaaaatg ggtggtccct actgcatagt gaaaggcaag gttcgtcttg gagcctggtc 660
 cgcaggaaga catgcnatg tgtagacta accaatgttg acctggcgac aggagtgggt 720
 ttgaataagt tgggtgaggc cgcaagacca cttcaccgat nggcccgatg agatcaaaaag 780
 gcnttggggc gngngnggn tgggatctaa aacccttgcc anaattgcca agttgganaa 840
 aatcaaggcc cgggaaatgg cncaaaaacc ggggtgatna atattgattg ganaaataaa 900
 gnttttttgg tggnaaaaann nnnnnnnnnn nnnnnnnn 939

<210> 1579
 <211> 919
 <212> DNA
 <213> Ctenocephalides felis

<400> 1579
 atntttattg catttggtgc gctcttcact ctgcccaaag tttatgaaac taacaaaaca 60
 caaatcgatg ccaatctoga tgcgttcoga agcaagttac aagaaattac ttccaaggta 120
 aaagcagctg taccaattgg aaagaaagct gaaagtgata aagataaata agcacaaaaa 180
 attatattta tataataatg tggatattta attgtatagc gatatacata actcttcaaa 240
 cataaccaca ccctttttta caataattaa atcaactaaa tatgaaatat atattatata 300
 tgttcgattg tttggacata tcgaaagcta tatgtgaata ttgcaaacgc aattgatttg 360
 tagtatatat ggaatcaatt ttttttcatg atgaaccaat tcgatagatt tatagaaagc 420
 ctttttattt taaatattta catttgacac taaaaatagg tatcttataa aaaaatttca 480
 ttttaatacat ataatatgtc tcatatataa tattttattat acattctttt aaagaaatat 540
 gttaaagggt tgnaaaatat tacttttttag tattagggtc tattcaaaaa ttgggtgggt 600
 ggaattattt ttggnattgg cggtaaattt tattttttaa taatatgcaa ttctcatcct 660
 tgnctttaag aataatnttt taaatatgga ttggtnaaaa gtaangtatg aattttactt 720
 ntgcgcatcaa tncaggtatc attaaatttn ttttaggagt ttaaaaaana aaangcncnn 780
 gnnnnngnnn nnnngntnnc ctgggggggg ggcccggncc caattncct nagngggggn 840
 ggttaanann cnggccgggt ttnnaacggg ggnngggnaa accnggnttc cccaattaan 900
 ngctgtggaa aaacccct 919

<210> 1580
 <211> 935
 <212> DNA
 <213> Ctenocephalides felis

<400> 1580
 ctttntctagt tattaagata acatnattaa aannacttat taacaataat gtongcta 60
 ttaaaaacca tatacgctt tgcgcgagag atgcattcca aaaatataaa taaacctata 120
 caatatggta cagctggatt tcggaccaaa gctacagact tggactatgt catgtttcgt 180
 atgggggttc ttgcagctct tcgttcccgt gttaaaagca cagcagtaat tggattaatg 240
 ataactgcat cacataatcc tgaagaagat aatggtataa aactcgtaga ccccatgggt 300
 gagatgcttg aacaaagttg ggaagagtta gcaaccactt tagttaacgt tagtgattct 360
 gagttagagg ctacagttga aaaaattgta aaagacttga atatcgatct taatttgaag 420
 gctaatgtgt ttattggtat ggatacaang tatagtacgt nccagtcct tgcaaagctg 480
 ctgttgatgg agtattatct atttcggggg atctcccaga gaattttggt attggtaccg 540
 actcccaatg cttcactatt ttgtttntn tgcaaacctg atcaagccta ttgggaaaac 600
 ctactggaag aangntttta tacccaattg gataacttgc ttcaanaacc ccttcgggcg 660
 angttncatt tcaatgggaa agnattnnc caaaatttn nttgatngg ngccnatgga 720
 ntggggggca aaaaangntt caatttnaaa aagacngng gangtttgat ttgtttttta 780
 acaancggcn aaggaaaata aatnttaggn gnggggctnt ttttggaang acaccattcn 840
 cncccaagg antncnntta aaaaantttt canngngntt tttgttgaaa cccaancgna 900
 tgnttcnnt tnnnganaaa aaaaggttt antgc 935

<210> 1581
 <211> 920
 <212> DNA
 <213> Ctenocephalides felis

<400> 1581
 ttttnatagt atgcatcctt tatcattagg agntaatact aattatccaa acaatttgaa 60
 caagaatatt tattggttta atttcaaaaa cattttgatt ttcatatatt ttattttattt 120
 cattttattgg aggaatatta attctattta tttatataac aagaatttca aatactgaat 180
 atttttcttt aaatatttat aaaactattt ttattatttt attattaaca ttaagaatta 240
 ttattttatta taataaaaaat tttctattaa tttttaacaa taattccata tttaatgatt 300
 ttaattcaaaa cttacttata tataatttta atctaaataa attatataat tttccaaata 360
 atttattaac tatttatatta attattttatt tattaatttc attaatttgt gtagttaaaa 420
 ttacagatat tttttatggc cctttacgaa aaaattttta aaaaaaaaaa aaaaaaaaaac 480
 tcgagggggg gccccggncc caatcgccct atagtgagtc gtattacaat ccctggccgn 540
 cgggtttacac ggccgngact gggaaaaccc tggcgttacc caacctaatc cgccttgnca 600
 gcacatcccc tttcgagct ggcgtaatag cgaanaaggc ccgnccgctc gnccttcena 660
 caagttggcg ccaccggaan ggggaanggc aaatggnagc gttnatnttt tggtaaaatc 720
 cggggtaaaa tttgntaaaa ncgnccattt ttaaccaatn ggccggaatn gggaaaccct 780
 tnntaatnca aagnattgnc cgggntgggg tgggngtggt tcngttngga acaaagtccc 840
 ttttaaggaa cggggncccc cgnaagggc aaaaaccngt tttagggggg nggcccctcc 900
 ggnaccccc ctaanaggtn 920

<210> 1582
 <211> 904
 <212> DNA
 <213> Ctenocephalides felis

<400> 1582
 acagatacgt agctgttaaa tgtcattgag ttgctatttt tgattatttc atcagtattt 60
 caataaatcc aacatatgtc tcggcacaca tcattataat taaattatta gtttcatttc 120
 cattaattta ttttactggc gtcaatatga cggatatcaa cgacgaatta gttgaatctt 180
 ttaaagcttt aggtttaagt gaacaaaagg cgaaagaaac gttaaaaaat acagttgtta 240
 cgaaaaattt aacattagca ttacatgagg tgaggggcat tattttgccc caaggagctg 300
 gttctttaat ctattatgtg gcaacaaaaa tcaaacaca gattatagat caattgcctg 360
 tacttgtaaa atatatatca acatcaaaat tagacacaac agttagagtt gatgcggcct 420
 tgcaatttat gttgtctcat ttaaattgat atcaaatcga tgaatttgag aaggcttggt 480
 gaattggtgt tggtgtacac ctgaacaaat tgaaaaagca gtaaatgagg ctatggtgga 540
 acataaagag gcaattcttg agaaacgata cagatacaac actggtcctt tgatgcaaag 600
 tgtaagagtt ctttaccctg ggcagatggt cggctataaa tgtgaagtgg acttacaggt 660
 tttgacttat tggggnccaa aactggtgcc gattancacc ttggcaaaag tggaaagaaa 720
 gtnaagntca cncagtgag gataaaaatc ngaccgaaaa gaagcccgag gaagtggatc 780
 aagcagcttg gggccatgtn tttntgaatg atgaaaaaaa agncctttta tgcctctggg 840
 naacctttaa aacnggggga tgagtacccc cctcccatga ctttnaaaaa cntttnaana 900
 aang 904

<210> 1583
 <211> 907
 <212> DNA
 <213> Ctenocephalides felis

<400> 1583
 gggantgtta aatcgccgta ggtgctcgca tagacaaata gttccttttt ataatatatt 60
 gtaatgaaac atttctcact caaaataaaa atactaagta ttgctgcgta aaaatatattt 120
 ataagggcgg tcaaactagt ctctcataat ttgatttatc tcagaagcca attatttcgt 180
 atatgatttg gcgccaattc cattccccag accgcccgtc aaggaatacg tcagtgcaca 240
 tttgctgtgt cgtatttggt gtttacttgt gttgtgtccg gataaataaa gtgcttgtga 300
 ttttaagtaaa atggctttta atgatgataa tgaggaaaat atagaaaaaa gtcataaaga 360
 tttgtgttta gaattaaata tggacacgtc tgcagctact gcttcgtggg attcttaca 420
 ttctattaga gaaaattgtc attagaggga aaccggaagc actggttatg ttgctcatta 480
 tatgtagcct gtcgacaaga tatgactccc acagtgggtc aagtgaggcc ttagtagaag 540
 gaaattgtgt cagtttaact agattattga gattgtgcaa tattagtctg gggtagattt 600
 ttaaaaaagt aagacatggg ctgaattgac aaatatgcct gaatcattat gagacgttta 660
 gatggattag aaaaagttng ctgggctgng atttattcaa aagttcaagc ttattcgacc 720
 actggttgng aaaccacaaa gaagggtgag gatcaccagt ctcccaacna acaaaaattt 780
 aaatctntca caagatatcc cagtctgtgg gtcttttggt gcatnaaagg aaacnccctn 840
 ccaaagnan gattaattgc ctggccctct ttgntgggcc ggcttgattg gtatatcnaa 900
 agccntg 907

<210> 1584
 <211> 898
 <212> DNA
 <213> Ctenocephalides felis

<400> 1584
 gttttntnct agactgatat atgcaaaaag tgtaaaaaaa tatagatgaa atgcgagagc 60
 gtgattttgc agacatgtgc tgaacagtat actatttgtt ttagatctag aaagtattgc 120
 gataagccaa tgttactaaa aaggcaattt ctttattttg aatattatct tatcgagtag 180
 gtaataacaa aataatcaac aaacgtgaat taatgaagtg ataaaaaata ctgacaataa 240
 tagtggctca aacggagatg cttagaagtt ctgtgaaaaa tatgtgatcg ttaatttgtg 300
 catggacaaa ttttctatca aaatgaagac taaagatatg gaaatgaatt tagaggaaact 360
 gaaaaatgat aacatcaaga aacagcagga tgaaatcaat ttttcatttc gaagtattcg 420
 ttatacaaga tgcgacagaa aagaaaaaaa atcagtgtgc atactgaaag gagtctcggg 480
 atgctttaca tcaggaaaac tegtggccat actaggtcca tcagggtcag ggaaatcttc 540
 tctgctcaat atactatcgg ggntcagaga aacaggccgt gcaaggntca atccgtctca 600
 atggagccaa tgtgacatta gataaacggg tttaggaaaag cctgttggtg tatacccaag 660
 atcngcatgc tggccactac caccgagaga actntctgtt gcagcagact gaaatgaaac 720
 agaaatcggg taaaactgtg gagatgcatg caaatgctt acttaccaat gttanaccnc 780
 gattantgcn ttttgngggc aaaaaaanat ttcaatggng tcaatgggga aaatcccaaa 840
 tntgttttgg tgancccttn ggccttgaag gggtcgcctt tnactaaggc cctntttt 898

<210> 1585
 <211> 912
 <212> DNA
 <213> Ctenocephalides felis

<400> 1585
 tgatttagat gtcggcgaac tgtttagcgt caacattgta caattacagt aaatattgtt 60
 taaaacctaa tctactatcg gccggaaaagt cccattttaat attgactcctt aatttttcta 120
 ctacaatgta cagaaaagga aaatttgact ttcctaagag atttacagga caagaaaaaa 180
 gtgtatgggt tgagtatata gaattagcta tcaaataata gccattaaat ttgggacaag 240
 gttttcctga ttatccttgt ccagaacatg ttataaaaggc tttggcagat gttgcaactg 300
 gacccgattc attattgcat caatatacaa ggggttttgg acaccaaga ttagtaaatg 360
 cattagccac tttatatagt aaagtcttga atagatcaat tgatcctatg aaagaaatat 420
 tagttacttc ggggtgcttat gaagcacttt actcaacaat tcaaggacat atcgatagag 480
 gagatgaagc tataattata gaacctttct tcgattgcta tgagccaatg gtaaaaggag 540
 ctgaagggtgt ttgcagatac attgcattaa aaccatcttc tgataaatgc tctgatgctc 600
 aaagttctgc tggattgggt tcttgataaa aaagaattgg aatcattatt caatggaaaa 660
 aaccaagctt attatttttna ataccctcac acccaacagg aangtattcc cttggaagaa 720
 cttgaattta tgntgactat gtaaaaaagg atgtctttgt tatcggtgaa gttatgaatg 780
 gatgngtta agctcatgac ctataaaatg gtaccttccg gatgggggaa aaactttact 840
 ntggactgcc gnaaaacttt ntggtcaggg tggaantggg ngggcctttg gncctttgga 900
 ttactaaaaa aa 912

<210> 1586
 <211> 941
 <212> DNA
 <213> Ctenocephalides felis

<400> 1586
 antcggggcgc ggccgcgggtc gcgggcgtgg ccgaggcaga ggaagagggtc gcggccgagg 60
 ttcttcaact cctgagtaca ccgtgtcctc cacaccaccc ggtggaggaa cgattccttg 120
 agtgtggcct taccaatctc catatcacac cggcgaacat catggtcaaa cagactctcc 180
 aatgggacct tcttgacgagc ttagtaatcc ggaagctggc tgctcgtgct cgcaccagtg 240
 ccatcaacca gatgacgtgg atgatactgt ttggttttta gctggtgtat atggatattg 300
 gttaggtatt gaaatcttga ttcttatgtg aactcgagtt tatttaatta gaatattata 360
 ttgtaatcgc attttatagg ctgtggagat aaacttcttg aataatatat taaatattgc 420
 ccacatttgc tcataatttg taggagtcaa taacgcaaca gaatgacttt tgaataatat 480
 attagtcatt gacatgagcc ggtgtttttaa aaatgcttag tataatgggt aaattcttaa 540
 tagtgaataa aaatattaga aaaaattgggt ttctggatgt gattcaattg gatataattac 600
 tattgaatag gtaaaccaatg aaccttattg gatcaatgtg cgatatataa aatacacggt 660
 gtttgaaata ttcatctatc tcttgataaa ctaacttttt tgctcacttc ttcgtacctn 720
 aaaatcttgg ggngattttt taaaggnaag ttttngctn tatggatttt taaacttgac 780
 ttaaaaaaaa anaagtcnaa atggtttcct aatattcacc gnnccannaa anatagttct 840
 aattattgng ttancatttt tttttaactt ggaggcgtat nttggggntn gggntnaana 900
 nnttggaat tnatttttnaa acttttagtt ttaaaanant n 941

<210> 1587
 <211> 925
 <212> DNA
 <213> Ctenocephalides felis

<400> 1587
 tgtgacagca ctcaaacatg tgttttgtca atactccatc atcaaatatc aaggctataa 60
 ttggaagctt tttcccgga tctgttctgt gcacgggaaa tgcgcataaa atgtatccca 120
 tgagtgaaca ctttttcaca ctttttgaag aaatgggtta tttgcatcta caagctacca 180
 aaccagatac agtgggcgtt gctttaagag attcaccagc tggtttagca gcttatattt 240
 tggagaaaatt ttcaacatgg actaacagat cttggaggtc agttaaaagat ggaaacttgc 300
 tgttaaaata caatattcct gaacttttag acaatgtcat gatatactac gttactgatt 360
 ccattactac ttcaatgaga ttatatgcag aatcattcac aaaagcacac cttgctttga 420
 acttagatag ggtgcgcaat catgtcccag cagcctgcgc aaaatttcca aacgagttgg 480
 cttatgtgac ccgattgcca acttgctgag aaatataaaa ctttattgca gtccaatgac 540
 atgccaagtg gtggccattt ttgcagcatt tgaggaacct ggtctttaac agaagacatt 600
 ttactgctg tgaaaaagt taaaagaatt ttattccaaa aaagctgaag aaagccaaaa 660
 gaaagctgat ttgggataat tttgggtgtg gatataata tatgctaata atatttggag 720
 ataaatttaa ccattcatg gtcacatatn ttttttcctt cctccctttt tttaaataaa 780
 aaaaaaaaaa actngngggg gggcccgnc caattcncct tntgngagtc gattacaatn 840
 actggccgng ttttanacgg tnggactggg aaaaccctgg ggtanccact taatggcttg 900
 gnaanaatnc cctttggcng tggggg 925

<210> 1588
 <211> 892
 <212> DNA
 <213> Ctenocephalides felis

<400> 1588
 tatattcgga tataatttct atgttttatt aaatatattg ttaaaaatgt tatagtgtta 60
 ttgtaaataa ttagtcatta ataaaaatg gctacatatg aagaatttat tcaacaaaat 120
 gaagatcgag acgggattag gcttacatgg aacgtttggc cttctagtag gatagaagcc 180
 actagattag tagtcccgt agcatgtctt taccagocct tgaaagagag gcctgattta 240
 ccaccaattc aatatgatcc tgtacaatgt acgagaaata catgccgagc aattttaaat 300
 cttttatgcc aagttgacta tagagccaaa ttatgggttt gcaacttctg ctttcagagg 360
 aatccgtttc ctccacaata tgctgcaatt tctgagcagc atcaaccagc agagttgatt 420
 gcaagtttct ctacaataga gtacaccatc acaagggcac catgtatgcc tccaatatat 480
 tatatgtcat gggatacatg catggatgat gaagaactgg gtgcttttaa agctctttac 540
 aatgtcttta agttatggcc ccaaactctt tgggtgggcta gtacattngg aaaatgggtca 600
 ggtcacgagt aggactgang tgtcaaagac ttgttttagag gcctaagatt aacagctaan 660
 caatcaagaa agttaggcat tgtcggaagt gatncccaac acagaaaggc ccaatgccca 720
 caataagcgg gccagccaat anatcatcca cctttccata aangcaaag gntttaccgg 780
 ccttttggga naacggnacc agaacttgg cctgtncctn aagggaaggg ggcttacgtt 840
 aactgggnct gatttttcga agcccnggg ccttttgngn gctttttgnc cn 892

<210> 1591
 <211> 926
 <212> DNA
 <213> Ctenocephalides felis

<400> 1591
 ctattttaaaa ttttgatatg caatttgtgt taaatgcggt gtaaagaaaa ctattttatac 60
 ctattttactg ttgtctttat tttgcttcat attgtatttt tcggtatcca taaatatcgt 120
 tgtttgtgaa aatttgtgtg aaaaagtcta ttaagcatct tcaagtttgg tatggctaaa 180
 cctcaoctga agaaagtagc gttcctgagg acccgctatg tcacagcaact aaaattaaga 240
 tttttcttct ttgtgacaat accagtttgt tatttggtat ttacagcggt aacaaaacaa 300
 tccgtttctt ctgaagatat tgaatattac ccgcagacac cagaaattac tggatcgcg 360
 aaattgcttg gcctatcttt caccgatgcc aagaattcga gcctggcaga tgatcatggt 420
 cataactgca cgcccgacgc tatcttagat tttccctctg atggattcac cagggagcaa 480
 agaagacagg gctgggcgct ggtccatgcc gcacgcatt ctactgcttc ttggctatta 540
 gcattagttt gcgatgacta cttcggtccg gcaattgaga tgctgtgcaa aaagctagat 600
 atgaaggaag atgtgcgcgg actacatcat gggcgctgcc agttctagtc ctgaattatt 660
 attaattcng naggacttca tacagaagga gacctcgggg tcggcncggg cgnggggttca 720
 tctgnattta atatactggc cgccctgctg tngggggctc tttgtgggaa ggtagtanaa 780
 tttaaatggn ggccagaacc tcgggatntg gcttgnntgg atttgccgaa ttggccctnt 840
 tcctacnttt ntaanatggg aaaagtttgt gggttgaanc cctaacccta aantggctt 900
 atatnttttt ttingcgttt gtncn 926

<210> 1592
 <211> 943
 <212> DNA
 <213> Ctenocephalides felis

<400> 1592
 tttntataaa ttaatatatc gttctcgttg ttaccaaatt atattattta aattaagtga 60
 aaaatatggc cagtgttgtg aagcagttgc caagaatata cggctccaaa gtagcgaaat 120
 gcatttcgag ccgtaattat tattcgtatg taaatgagcc tgcccaacaa atcaaagaca 180
 aagaaccgaa atgggttact gccgaagaag ccgtaaaaat tattaatatca gatgactggg 240
 tgtacgctca ggtgcggtct gctaccccaa tcaacttatt aggtgcatg actgcacatg 300
 ggaagaagca aggctgaag aatgtgcgct tctgccacat gcacactgaa ggacctgcat 360
 tatacgtca gcctgattgc gaaggatata ttagatctgt atcattcttc atgggaggca 420
 acgtacgtgc agctgtgaat gaaggacgag gcgatgcaat tccaatcttc ctatcagaaa 480
 tacctcttct attccaaaag aaaattatc aacctgatgt agccatagtt catgtttctc 540
 ctccagacgc tcatggattc tgcagtttan gtaccagtgt tgactgtgcc agagcttgctg 600
 atgcaagcat caaaagtgat aattgcccaa gttaatccta aaatgcccg ctttgggtga 660
 ctcatgtgtg cacaaaaagt cacatagata tgctgtanaa attggtgaaa ccgtgggtacc 720
 catgngngna aaccaccta tgangaaga aactgcaatt ggngcacata ttgnnaataa 780
 cttgngngaa aaaggngccc actttaaatg ggtntnggaa ccattcctga tgcngtntt 840
 tgccaacttc cttaatcnca aaaatnttg aattcatttt tgaaagtttg gccaanngnt 900
 aatngcntta aaggaaagga ngngttgtt ccaaaaccta aat 943

<210> 1593
 <211> 929
 <212> DNA
 <213> Ctenocephalides felis

<400> 1593
 tcaaagaacg tgacaagaaa aatatgtgaa ttttgtatgt tacataataa tttttttatt 60
 tcctcgagta tttgttaatt tgcgtgggct gaattttcgg ggcgaaactt gtgatatgaa 120
 caaaattgag atggctgaag ctgcatcacc tagtacagaa atgccacact caggtggaga 180
 accagggaca ccaatggggt cagttgttgg tgcttcagggt gaacttgagg ggctgagccc 240
 agaagaagct gaattgaaaa gagctgagtg gagccaagag cttgcaagag tggaagaaga 300
 aattgggtact ctaagaactg ttttggcaag caaagttcga agaagtggag aactgaaagc 360
 taagttaggt atcactgttt ggaaagaact aactggggat gtcaatcaaa gtctacgtac 420
 tgttaaagag agtcaagtct atggtaatat tgaaaattgt attggacaaa taagtaaagc 480
 ttgtgactag tgcacctatt taccagaaaa cagaattggt actgaaatct actgccgaaa 540
 aaactacttc tttgttaggt ggaatactgg tggtttgaca tccaaaattg tcagatgaga 600
 aatctgaatc tttcaaatca ctagaagaaa aaatgggttc agcctatgaa aacgttaaaa 660
 caaaagttca tcatctcgtt ctaattctat tcaaaatttt gatgaagcat tgcgtgaagc 720
 ttaacaagat tctgttcaac ttctactntt cctgaaaant caatttcaac cagtacntt 780
 tgnttcaaag ctctctcttg ttntttatna aattttnaaa aattagtaac canggaaaag 840
 tcoggnccac ccgaagatgt ttttctctac caaacttggg tcacatactt tnttggaat 900
 cttttccatc caattcatta tttttnaag 929

<210> 1594
 <211> 938
 <212> DNA
 <213> Ctenocephalides felis

<400> 1594
 cgnttggtc atcgctactg nogaatatna caacagtcaa cttaggttac aacttgtgng 60
 accttcatca tcttgtaaca caatctcatc cccatatctt tgcaagtgaac tttagaagta 120
 gtcagattta tgcaggcgat ttttataaac atggacgtcc taatgtacca ttcagagtct 180
 gatacaccag ccatggccag gacttcaaat ctaaacgagg aattggggat ggtaaatac 240
 gttttcagtg ataaaacagg aacgttgacc aggaatgtta tgaagttgtc taagtgttct 300
 attggtggaa ttattttattc ttgtcctgat tgcccgaag gcagctttag agatagtcgg 360
 gttgatggac ttgatattga ggatgctcag aaaagcgatc tggttcagaa tttactcaac 420
 aatcatccaa cagtcgactt gcttaaagaa tttatgagtt tgctatcggg ttgccatact 480
 gtgatacctg aaaagagcga ggatggnaaa atcattatca tgcacatca ccagatgaaa 540
 agactttagt nagtgggtgca aagaaatacc gnttcttcat ttgaaacccg gncaccacat 600
 caccgtaaaa antaaacgct tgggggtgaa ttttaaaaat tgagatattg gatggtctcg 660
 aatttacttc aacaggaaaa gaatgtttnt tgnttggttag aacnccagg gccaatataa 720
 ntnttttggg aaaggaccag attcctgna tnttttgaaa ggttngccaa agaggacncc 780
 aatttcgnga ngtaacnttg gaaanctttn gnccaatttg ntnagggggg ggccgggtcc 840
 ccaattnccn ttaagggngg nggattacaa ttnttgccg cggttttnac cncgggactn 900
 ggaaaacctg gnntttccca cttantcctt ggangcct 938

<210> 1595
 <211> 929
 <212> DNA
 <213> Ctenocephalides felis

<400> 1595
 cttttcgatg ttgatgccaa aacagaaccg tgtcgcaatc tacgagcacc tctttaagga 60
 gggagttatg gtggccaaga aggactacca tgcacccaaa caccagaat tagagcaa 120
 tccaaacttg caagttatta aggctttgca gtcgttgaaa tctagaggat atgttactga 180
 acaatttgca tggaggcatt tctactggta tctgacaaat gaaggatttg aatacttgag 240
 gacatacttg cacttgcccc cagagatcgt gccctccact ctcaaacgtc aaaccaggcc 300
 cgaattggca aggccaagac cagctgccgg cccaaggact gaaggatctc gtccagctga 360
 agacagatct gctaccgtag ggcacctggt gcacctggtg gcgctgacaa gaaggctgat 420
 gtcggtgctg gcaactggaga cttggaattc cgtggtggat atggacgtgg cagacctgcc 480
 ctcaataaat ttatataaag taatttataa taaaatatca ataaaacatc ttattgataa 540
 accnnnnnnn nnannnnnnn nnnnnnnnnn nnaacttgng ggggggcccc gggncccaaa 600
 tccnccttta gggagtctan tanaattcnc tggccggngt tttanaacgt ngggatggga 660
 aaaacctggn gttnccaa atattccctt ggaaanac ccttttncca gttgggtnaa 720
 aacnaaaaag gccccaaccg atccctttc caaaaatttg cccaccttaa tggnnaaagg 780
 gaaatttgaa ncttnatttt ttgtaaaaat ccggtnaaat tttggnaaaa aactnntttt 840
 taaccaanag gccnnaaatn nggaaaatcc nttttaanna aaaaaanaan cccgaaaagg 900
 ggtngggggt ttccaattgg naaaaaant 929

<210> 1596
 <211> 935
 <212> DNA
 <213> Ctenocephalides felis

<400> 1596
 ttctgttat tgcattcacc aacactgatt ctccattgaa atttgttgat attgcaattc 60
 catgcaacac taagtccaac cattccggtg gtttgatgtg gtggctgttg tccagagaag 120
 tottgagact togtggatca attccccgtg agaagacttg ggatgtcgta gttgatttgt 180
 tottctaccg tgatccagag gaagtagaga aagaggatct tgttcacaag gaagttgtgg 240
 ccaaagttga gactgctggt gctcatgata ctgctgaagt atgggcagga gatgagccag 300
 ccactcaatt atggactgat gatgcacctg ttgctgcagt tccggctggt taccctgctg 360
 ctgccagcca agattgggccc gagcaagtgc aagaagaatg ggctgccaac cctaccccag 420
 ctgctgggtca aactacttgg ggaagctcca cacaagaatg gtcataaatc aaatgatact 480
 ttttgtattg gataaatgaa ataaatgaaa attaaaatta aaaaaaaaaa aaaaaaaaaa 540
 aaactcgagg gggggncogg tcccaattcg ccttatagga gtcgtattac aattcctggc 600
 cgncgtttta caacogtcgn gactgggaaa accctggcgg tanccaactt aaatcgctt 660
 gnagaanaat cccctttcgc aactggngta aaaaacnaaa agccccacc cgatcgctt 720
 tccaanaatt ggncaancct gantngngaa tnggnaaatt tgaagngtta ttttttggtg 780
 aaaatcccg ttaaatTTTT gtnaaaaang ntnntttttt aaccaaang ccgnantng 840
 naaatnctt ttaatnaaaa aaatancccg gaatgggggtt ggggtttttt cnatttggn 900
 caaaaatccc tttttaaaaa acnnnggcnc canct 935

<210> 1597
 <211> 941
 <212> DNA
 <213> Ctenocephalides felis

<400> 1597
 tgctttgtgg aaggaaagtc taaaataaga atataaacta tgccgggtac cgggacgttc 60
 aaattattca tcggaaatct tgacgaaaaa actcaagcgt cagatatatg tcctctgttc 120
 gagaaatacg ggacggtcgt cgaatgcgat gttgtcaaga actttggttt tgttcatatg 180
 gagaccgaac agcaaggctg ggatgcaatt cagaacctaa acggctacgt aataaacggc 240
 gaggccataa aatgcgaagc cgccaagagc cggagggcgc cgtcaacccc gacgacaaaag 300
 atattcgtcg gaaatttgac agataaaaact cgcgcgccgg aggttcgcga actgtttcaa 360
 aaattcggta cagtcgtcga atgcgatatc gttcgttaact acggtttcgt gcacttggac 420
 gcgagcgggtg acgtgaacga ggcgattcgg gagctgaacg gaatgatggt cgacggggcaa 480
 cccatgaaag tgcaagtgtc cagcagtcgc gtgcgccaga agccggggcat tgggtgatcc 540
 cgacaatgct accgctgcgg gcgtggggga cactgggtcca aggagtgtcc ccgtgccatg 600
 ggggcccgatc gtaacggctt tccgggagan gatgttcggt tgngaccggg accttcgccg 660
 gcggcaccgg cnttctgngc caaccggatg atgggccgga ttcccgggat tctattgacc 720
 nttcttcgat agangttttg atggttcaag ggatttattt gganaggcgt tnttctggng 780
 ggaatgcccg gtntgcgtgg gggggccaaa atttattgcc gcccaaggaa aaaanccttt 840
 gcctcctttc cccctttagn aataaaaaan gggattggga tttttanggc ctccaacttt 900
 tattccattt ttaccggng tttcccaag gngggttgcn g 941

<210> 1598
 <211> 937
 <212> DNA
 <213> Ctenocephalides felis

<400> 1598
 aacnttttta agtgatttat ttattttata ttattgttgt aaaattacaa ttttcaaat 60
 gagattagga gccacagtac ccaatttcaa ggctgacacc acagaaggac ccatccagtt 120
 ttacgactgg tctggcgata gttgggttgt gattttctcc catccagctg acttcacacc 180
 cgtctgcacc acggagttag gtcgcatggc cgtccaccag ccgcacttcg tcaagcgcaa 240
 caccaaattg ctgcacctga gcgtcgacga cttgcagagc cacaaggact gggccaatga 300
 catcaagtct tactgccagg acattcccgg aaaattcccg tacccaatca tttccgatcc 360
 gaaacgcgag ttggctgttg ccttgacat gatcgacgaa gagcacaagg acgacctgc 420
 tcacgccatg accgtcagat ctttgcgtg atcgatccga accacaaatt gagattggcc 480
 atggtttacc cattcagcac tggacgtaat gtcgacgaaa gtattacgtg tgatogactc 540
 tatgcaattg actgatcgtc tgaaagtcgt cgcaacgctg ccaactgggt tccttggggg 600
 aaaaaagtaa tgatcctgcc ttccgttcag aatgaaggaa gcagccaact gtttccaaaa 660
 ggtggtgaca cttgttctat gccttcagg aaaggttttg gtgccncac cgactgggtt 720
 ttnaaaaaaa acaagaactt tttttgnttc cttaaaaatt tttaatccnt ttccaaatnt 780
 ttgcnaaaan ttttaatttt ttttttatga acaanttttt gaaccctaag cnttttaaan 840
 tttntttcc gggatcaatt anctttaagg atggngttt ttaaaaaaga ttttttccan 900
 ggttttntaa atntgggaaa ccottttttg naatntt 937

<210> 1599
 <211> 648
 <212> DNA
 <213> Ctenocephalides felis

<400> 1599
 gtcttcctggc caggggggcct ttggcgggac atacacttgt gagagcaagg gcaccgccgt 60
 ctccggagcc gttttgcccg gagcaccagg acgagaggct aggattttac tgtttggcgt 120
 gcaaggaacc tgcctgtgcg agctgcctgc agacggagcg acacgccagt catgacgtgc 180
 aggcgatcac tgcaatgtgc aaggcgcaaa agactgaatt atcccaaat ctgcaacagc 240
 tttctgaaaa agcgagggtct acgacagaat tcatacaacg gctaaaaggg atgagtgaca 300
 aggttatgga atcatgtaca gaatttgaac acttagtaac agcacaatgt gatgcattga 360
 tcacagctat tttaaataagg cgagattatc tcctagaggc aatacgatgt gatagagaag 420
 ctaaactcag agcactcaag gaccagcatc aactgctaca ggaaaattac aacacacgac 480
 aggttaatac aatttgatag aggcttcaaa gaaacgatag tgtgatatta cagggtggttc 540
 atgtatagcc ganggccaac gacatcgctg catcgagggn agagcncgcg gtgttttnaca 600
 gtcactctacc tgacgacagc cgtctaggca tgnccattact tntcaang 648

<210> 1600
 <211> 650
 <212> DNA
 <213> Ctenocephalides felis

<400> 1600
 gatgctcttg gggtttcccc agtgggtcca ccaatgtaaa taatcgaatc gttggaggca 60
 aagacaccac aattcaagaa catccttaac aagtatcaat tttgtacaat gatgaatata 120
 acagctgtgg aggttctttg atttctgaaa aatgggtttt gacagccggg cattgcatcg 180
 attctttcaa attctacatc cgtgtgggaa gttctcttga aggcgaaggg ggagctgtgc 240
 atcgagctct aaaacaatat cgacatgaaa agtttgatgc aaaaactgta gattatgatt 300
 atggattaat tgagtttagc acaccggtag aacttagtga aaatgtaaaa ttagtcaaat 360
 tggctgaacc tgggtgtgaa cttgaagaag gaactctact aaatgtcacg ggatggggta 420
 gccgtcgatc cagcgcagct ctacaaatag taactgtcca tatgtatccg aagaagtctg 480
 caaaaaatca cattcagaca ggtgatctcc catatatgtc tgtgtggtaa atgcaggag 540
 gagaagnctc tgcattggtg cttgnggccg gtgatcaatg gntcaattgg attgttctgg 600
 acttgatggn ctccactttc tcgttttgta atnccgntnc agatggtaag 650

<210> 1601
 <211> 649
 <212> DNA
 <213> Ctenocephalides felis

<400> 1601
 atttnagcca accagcaagc agaaacattg cagactcaat taaatctaata gtcccagcaa 60
 cgagatgaac ttttgcccaa gatgagtgac actgaagaca aatataatag acaagttgct 120
 gctctaacca atttgcaatg tgccttagaa caattccaaa gagataaaga tcangaaatc 180
 caccaatgca cagaaaggat aagaaaccaa ttggaattgg aacgacagga acaaaactgct 240

ttaaggaacg aaatccaatc cctaaaaacg caacttagtg aacaacaaca aggcctgatg 300
gctgcaggaa gacttgccag tcaacttgaa tcctcacaaa caactgtaca aaatctcaga 360
caagaattga aagagagcca agacaaatac gctgctctga ccgccaaagt ggagtcttca 420
aaaaacaacc aagccgacaa aatcgagaag agcttgtaaa aacctaatgc tcggtacatc 480
cagctgggtca acaaaacgac angcacaat ctaaaatata tagcagtctc gacttcacca 540
gtcggatgcg accgatagct ttgagcacca aaatatntgg ttgagatctg tctggatgga 600
gagaggctgt aancctgcna ttttggaag atttaccac gntnggagg 649

<210> 1602

<211> 646

<212> DNA

<213> Ctenocephalides felis

<400> 1602

gttttgtgga gctactggta gagctagcaa ctttttatta tccgtcagggt gtgttaagga 60
aaaagataaa cctgtgtcga tgggttttgg attgatgata atgtccttgt ttgccttcgt 120
accgtcacca atattttttg gagcaattct agatcaaaca tgcatagttt ggggaaaaac 180
atgttccgga actggaaact gctggctata tgatgttgaa totttgcgtt acatcatgaa 240
tttaacggca gcttcttttg tcacaatttg agtattatgt gatgtcggag tttgggtattt 300
cgtcaaaaat ttaaaaattt acgatgaacc tgatgatgac gaccaagaaa tgaattcttt 360
gaaggcgcaa aaggcggatg gagctgctgc aacttattcc aatcgaatct ctctatacaa 420
agtcataata agaatagtac ttgaggaatt taaaattaat ttaagttgta atgcaaaaaa 480
tgtaactgat taaaatatat aaataaataa gtngaactat aaaaaaaaaa aaaaaaaact 540
cgngggggcc cgggtccaat cgcctatagg agtcgataca tcnctggcgc gttacacgcg 600
gctggaaacc ctgcgtncac taatccttga gacatccott cgcagt 646

<210> 1603

<211> 643

<212> DNA

<213> Ctenocephalides felis

<400> 1603

caancatcca tgtttttattc tgtatatatg tttgtgatgg caattgttta ttgatatgaa 60
attaaattaa tatttcgata aaacattcgt tattattaga atatttgttc tagataagtt 120
aaattatattt aaggggtctt aagtatttgt tttatttgtt cgitttaattg tgatgtagaa 180
ttgtgagaat tcaatataat atattaaaaa tgtttcggca agacaattca aaagctttta 240
tgaaagaccc tcatactgog aattgtagga tttatatttg aaatataaac gagcatgtga 300
attctcaaga aatagaaaca catttcgcaa aatatggaaa aattctcggc gttttgctac 360
acaagggatt tggctttatc caattcgaaa aggaacaatc tgtcaatgaa gccatcaaaa 420
tggaacatca aaatatgttt catggcgaaa catgattgtg agacgagcca aagcaatgta 480
ggaggagcag gtggtactct gcaggcctgt acgcaggctc ctccgaatcg tgatcgggcc 540
gttccagnac tcacacatga gggcagacag gtctgggtccg gcctgtcnct tgtgcctcgc 600
attgcagcgg agtggttggg gctcaaagcn ggcgtgtgtg aan 643

<210> 1604

tcttgctagg atgtacgcc acaataaagg ccgtaagcct tctgactttc caataaaatc 360
 cctggacatt tctggtgttt ctggtaacct ggcaaaagct ggaaatgctc gtgaaattgc 420
 ttctctcatg atacancaaa cagttccatt attcaagaaa ccacttgtaa atcacacttt 480
 tgattgtatt gtgcagttgg aatgttgcac cttcagtggc atgtcatgtg gtccagtgat 540
 agctacgatt tgatgcatat atgacaattn gcactatatg atgctgtcag ttttgataag 600
 gccaatcctc catccttnga caatntgctc aangatccgg gttc 644

<210> 1607

<211> 650

<212> DNA

<213> Ctenocephalides felis

<400> 1607

gttggggccca atgggtgtagg caaatccaca ttcttgaagt tattgactgg tgacatcaca 60
 ccaatcagag gagaagtaaa acgcaaccat agactgcgca tcggtcgttt tgaccagcat 120
 tctggtgagc acctgactgc ggatgaaacg ccggccgagc acctgcaacg gctgtttgat 180
 ttgcaacatg aacgtgcaag gcgagccctc ggatctttcg gtttgatttc tcgtgctcat 240
 actgtatgca tgaaggatct ctcaggagga cagaaggcta gagttgcatt agctgaatta 300
 tgtcttaatg cgcccgatgt tctcattttg gatgaaccta cgaataacct tgatattgaa 360
 tcaattgatg cattggcaga agccataaat ggatataaag gcggagttat tgtagttacg 420
 cacgacgaaa gacttattag agaaaccgat tggccttata tgtgatagaa gatagaacga 480
 taaatgaggt ggatggagat tcgatgacta tagaaaggat tattagaaag ctgggtgaag 540
 tagtgaataa tcaagtattg ccgtaatgca nagtatcata aaagatatac atatacataa 600
 tgctgattta cttcaatcta tatgatatgc nttgnaataa angataagaa 650

<210> 1608

<211> 637

<212> DNA

<213> Ctenocephalides felis

<400> 1608

ttgntcgtcg ttttggccac tttggccaca ttagtggcag ctgatggagg atacaaaggt 60
 tacaaaatct acgacgtgac tgtaacaaat tcaatccaag aagcagccct tagatcaata 120
 ggtaacagtg gcgaattcga tttctggagt ccctcaaggg tccttgtaaa acctgaacaa 180
 atcgcaaaat tcgaaggact tttgaaaact ggaggaatcg acttccaagt ttttgttgac 240
 gacgttgacg aattttgcacg taaggaaaaa gccgaaaatg aagtcgccga atctagggcc 300
 gaaggcgct tgctcttcac tgcttatcat cgttacgatg tgatccaaca atacttgagc 360
 gaaatggcat ccaaacaccc agatttagcc aaggtcgaaa ccacgcgcac ttccagcgaa 420
 ggaagaccga tcaaagcgct gcgcttatcc agcggaggaa acggtacaaa ccggttggtg 480
 tatggcctgc atccacgccc gagaatggtg gcaccaacca ccgcttgact ttagagacaa 540
 atctggaacg gccgacatat tattgcgaat ggatgggtca tcattctgtt taatctnngg 600
 tacaatctct acctgggacg tttgagaaac cgacaga 637

<210> 1609

<211> 642

<212> DNA

<213> Ctenocephalides felis

<400> 1609

gacnncggtg atgacagagg ccgggatggc gattggacat gtcctagttg ttccaacacc 60
aactttgctt ggagaaatgc ctgcaacagg tgtagtgaag aaagacctga tgggtgcaggc 120
ggcgggtgact ccggccgagg tgggtggccgt ggaggcggcc gcggcgggtg tgggtggaggt 180
ggtagttacg gtaaccgcgg aggtgggtgat agagattctg gtcgcgggtg tgatagaggt 240
tttcgcggag gtggtggccg cgggtggcgg ggcggttatg gaggtggccg cggaggcgggt 300
ggtgatcgta attctggagg aggtggctca atgcgtggag gagatagagg acgagatagg 360
caacgacctt attaaataat tagcttgtaa ttttattcac cctcattttc acatcattcg 420
tactcatatt agattttattg attttttagaa ttatttatat gatttgtatg attcaatgta 480
acacaatatt gtaaattctta tattaagatt taataatata aaataataga aaaaaaaaaa 540
aaaaactcgn gggggcccg acccattcgc ctatagtngc tatacaatta ctgccgcctt 600
tacacgtcng actggaaaac ctgcttncca cttatcgctt na 642

<210> 1610

<211> 634

<212> DNA

<213> Ctenocephalides felis

<400> 1610

acttttcgat caattcgtat tagacttttt gataaaaaat gctgtctaaa gcttcgcttt 60
tggccaaggt atcccggcca ctgactgtgg cagtgcgaac aacatcccag gctgcaacat 120
gccctgctcc tacaaaggta gaagaagccg atagtgtgta aagagatttg gtcaacttcc 180
caaggccaac acgtttggaa cattcaccta aagttcgctt tggattcatt ccagactcat 240
ggtttgaatt tttctatgag aagaccggtg ttactggacc ttacatgttt ggaactggtt 300
taattactta cttatgttca aaggaaattt acgttatgga gcatgaattc tatactggta 360
tttcattggg tattatctgt ctctatgcc aaaaaagtt ggggtccacat attgcaaaat 420
acttgacaa agaagtgatg cctatgccga tgaatggaat tcagtcgtgt agaagaagta 480
aaagtaccaa gatgccattg aaggagaaag tggacaatgg agactgaagn cacttatgtg 540
tggtgccaac gtgaaatgtg cctgcacttg aactanagg accnntgaa gtnntagagg 600
tagaaacata ttccagttg aaangaantt gacn 634

<210> 1611

<211> 639

<212> DNA

<213> Ctenocephalides felis

<400> 1611

cannatgcc cgaggaaaat ataccaatca caaaggcggt aacaggcatt tcacaaatcc 60
agaagagtta gaggaacaga gaaagcaaga agaacaaaaa aggcaatggc gtagggatca 120
tggaacgaa tcaagttctg aggaagagga agtagccaaa aaagctgcag gtgataagaa 180
gaaagcccca gggctggaaa gctctgattc agagagtga tcggagactg aatcttcaga 240
agatgagaag gataagaaga aaggtgtatc tggattgata gaagtggaaa atcctaatacg 300
tgttcaaaaa aaaaccaaga aactttctac tttaaatgaa acattaactg atagcaaaacc 360

acaattgtca agacgagaaa gagaagaagt tgagaagcag agagcgcaag cacattacca 420
aaagcttcat gcagaagcaa aactgtcaag caagatctgt ttagcaagac ttgcatcatt 480
aaacacagcg tgaagaacag cttaaagacc gagttggaaa aaaaaaaaaa aactcgnggg 540
gggocggacc cattenctnt gnngtcgtnt acatcatgcc gcgtttacac gtcgngtgga 600
aacctgcgta cccacttata cttgagactc cttgcccgt 639

<210> 1612

<211> 640

<212> DNA

<213> Ctenocephalides felis

<400> 1612

atttntgttg gttaactcga gcagtaagaa tatataaaaa tggctgcagt tggcaaagat 60
ttagaaaaac caacagctga ggtgcctcag gtccatcgca tccgtataac tttaacttca 120
agaaatgtac gttcattgga gaaagtatgt accgatttaa taaatggagc caagaaacaa 180
aagctccgtg tgaagggacc agttcgcgtg ccaacccaaa tcttgcgat taccacacgt 240
aaaacacctt gtggtgaagg ttcaaaaact tgggatcgct tccaaatgag aatccacaaa 300
agagtcacgt atctgcactc tccatctgaa attgtgaagc aaatcacttc catcagtatt 360
gagccaggtg tagagggtga agtaacaatc gctgatgctt aaattttgta aattgatgga 420
aataaatgac aaaacctaata aaaaaaaaaa aaaactcgag gggggggccg tcccaattcg 480
cctatagtga gtcgtatata attcactggc gcgtttacac gtcgtgctgg gaaaccctgc 540
gtaccacatt atcgcttgn cacaacccct tcnantgcg tatangaaag ccccnccgac 600
gncttncaca gtgccanctg atgggaangc aattgnagct 640

<210> 1613

<211> 644

<212> DNA

<213> Ctenocephalides felis

<400> 1613

cactttgagg ttttgatcct taaccatggt gaacggacgc atcccgtccg tcttttcgaa 60
gacatatgta acccctcgtc gtccttatga aaaggctcgt ttggaccaag aattgaaaat 120
cattggagaa tatggtctcc gtaacaagag ggaagtatgg cgtgtcaa atcactttggc 180
taaaatccgt aaagctgccc gtgagttgct cacattggac gaaaaggatg gcaaacgtct 240
cttcgaagggt aatgctttat tgcgtcgttt agtacgtatt ggagtgttgg atgaatccag 300
aatgaagctc gattacgtgt tgggtttgaa aatagaagat ttcttggaac gtcgtctgca 360
aaccacaagt ttcaaaactgg gattagccaa atcattcacc acgctcgtgt tttgatccgc 420
agagacacat tcgtgttcgc aagcaagttg taatattccc tcttcattgn gcgttggtatt 480
acaaaaacac attgacttct ccctcaaatc gccttcggtg gtggtcgtca ggacgttaaa 540
gaggaagact tgagaaagga tcagcgtgnt cactgccgag gaaaagagat aactttcaca 600
tttaattgta tttttcataa taaacaaatc gcaaaaaaaaaa aaaa 644

<210> 1614

<211> 635

<212> DNA

<213> Ctenocephalides felis

<400> 1614

```
gtttgacaa gatgcgaaag caggctttct catctgtatg tctgttcggt gaagacaata 60
acagcagcat ttctggtgtt tgggtatgga ggggtcagga attagcattc aatctttccc 120
ctgactggca aattgactac gaaacctaca actgggtcaa attggacccc aaatcagaag 180
agaccaagaa attagtcaag caatacttct cctgggaagg tgccgataag aacggacgca 240
agttcaacca aggaaaggtc ttcaaataaa attcaactaa agaattgcc aTTTTgttaa 300
tatttcaagt tattgtaatc ttatcctgcc acaatattgt tatttttata gcaaaatgtt 360
tgctgatgat ggcatgttat attaaaattt cttgaaataa attattttaa atctaanaaa 420
aaaaaaaaa anaaaaaaaaa aaaaaaaaaa ntgggggggg gccgggcccc aatcccccta 480
tagggagtgg ntaacattcn ctgccgcgtt tanaacngg gatgggaaac cctgngttcc 540
caattatgcc ttgaacnadc cctttccnan tggnnnanag aaaaggcccn cctncttcc 600
aaattgccac ntnatgggaa ngaanttgag cttat 635
```

<210> 1615

<211> 641

<212> DNA

<213> Ctenocephalides felis

<400> 1615

```
gttttnagtat tttttgttat ttcttgactt gatcatctgt tcgataagtt aattctgtaa 60
taatgaaaat tactagatat aagaaagtag atcgaaattt gaacttttat attaacaatt 120
ttggttttca tcagccattt caaatactta ttgacggaac tttctgttct gatgcgttaa 180
agaatcaatt caatattcaa gatcagttaa agaaatattt tcaagctgag cttaaacttt 240
taactacgca atgtgtaatt gtggagacag aaaatttagg acccaaattg gttggtgcc 300
tgaaaattgt aaagcaattt ggtattcaca aatgcggaca tgaaaaggct ccaattggtg 360
ctagtgattg cttactatcg atggtaggca aaagtaatag agacagatat gtcatagcta 420
cccaagatcg tgatctacaa gaaaaaattc gggaaaaacc tgggtgtgcct ctattgtatc 480
tgcatcgtaa agcaccatgt tagagcgctt cacaactagc cgtgataagc tctggaatgc 540
tctggagctc aagtccaaca agggagactt gnataanaat aaagagagtg gttatcagaa 600
acacatgaca gaaaggagag aagaaaagaa ggnctatctt t 641
```

<210> 1616

<211> 636

<212> DNA

<213> Ctenocephalides felis

<400> 1616

```
gcattatacc gccattgtt gttcactgct ccagactctt tgggtgacca catatctggt 60
gttattttgt tccacgaaac cttataccaa aagactgatg atggcactcc attcgtagaa 120
cttttgaaac gcaaaaacat catcccagga atcaaagtcg acaaagggtg agttgacttg 180
atgggcagtg agaatgaatg cactactcaa ggattggatg atttggtgct ccgctgtgca 240
caatacaaaa aggatggatg ccactttgcc aaatggcggt gtgtattgaa aattggcaag 300
aatacaccaa gctaccaagc tatttttagaa aatgctaag tcttggccag atatgcctca 360
atctgccaat ctcaacgttt ggttcctatt gttgaaccag aggttcttct gatggagatc 420
```


Variable	Mean	SD	Min	Max
Age	35.2	10.5	18	65
Gender	Male			
Marital status	Married			
Education	High school			
Occupation	Teacher			
Income	\$30,000	\$10,000	\$10,000	\$50,000
Health status	Good			
Exercise frequency	3 times/week			
Dietary habits	Healthy			
Stress level	Low			
Sleep quality	Good			
Family size	2			
Work hours	40			
Commuting time	30			
Neighborhood safety	High			
Access to healthcare	Yes			
Health insurance	Private			
Smoking status	Non-smoker			
Alcohol consumption	Low			
Chronic conditions	None			
Genetic predisposition	Low			
Environmental factors	Low			
Overall health score	85	10	70	100

<210> 1620

<212> DNA

<400> 1620

<210> 1621

<212> DNA

<400> 1621

599

gaagatattt ctgtactcaa agctgtaccg gatttggatc ccagtactga gaaagaatta 540
 tactcagtac aatctcatcc caganagttg taaagaccac attcaagagc caacttgcac 600
 gtgtaggtgt cngagaactg aaataagcat gcaaaaataa 639

<210> 1622

<211> 635

<212> DNA

<213> Ctenocephalides felis

<400> 1622

aacnatacaa caatcgatac gagacccgaa gtatacgata taatcaatct aaagtctgaa 60
 acagttacaa aaacgggoga tgaaacagga cagtcgcgga acattgatgt gcccgacaat 120
 ggcgacgatg aaaatcttga catgaaaatc gaagcggacc gactgaaaac attcgaaaga 180
 tggccagtga gcttcataag cccctcggta ctagccaaat cgggattcta ttatatgaaa 240
 gtcgacgaca gagtcagatg cgagttctgc aaagttgaaa ttggcagatg ggaacaaggt 300
 gacgaccctt ccgtcgacca ccaacgttgg gctcctaatt gtccattcct acgcaacagg 360
 cctgtaggaa acgtgccaat agaccctccg agcacgtccc gagacccgga ccgagctacg 420
 acgtatgcgg cctttgacca tacgtccaac gcgtccagaa aacaaaaacc tagcctacct 480
 gtcaccaagg gcctgaatcc cccagtacgc atgagcagca cgcttagatc tactccatgg 540
 ccggcagtta aagacgtcag gagaactagt gaagagcttt ttaccaggca cgaacgacct 600
 tgttcntggg ngnggtaaaag atggaccgga tntct 635

<210> 1623

<211> 641

<212> DNA

<213> Ctenocephalides felis

<400> 1623

gaattatttc tttgtggctg taaaagactg cacagctgct ctacttcaat caccggctga 60
 ttaaaaaaaaa cactgctga aaatggcttc gaaagtagca gcaaagaaag gccagtgcca 120
 aactggcaaa aaacaacaac ttcgcggaaa gggattgaag aaaaagaagg tatctcttaa 180
 atttaccgtc gactgcacca ccccgctcga agacaacatt atggatgtac agaacttcaa 240
 aaaatacttg caagagagga taaaggtaa cggaagacc aacaactttg gtaacaacgt 300
 ctcgttggag tgccaaaaaa tgaaagtgtc tgtcatctct gatatcccct tctcgaaaag 360
 gtgccttaaa tacttgacaa agaagtattt gaaaaagaac aacttacgtg attggattcg 420
 tgttgtcgat ggtggcaagg actcctatga attgaggtct tncagatctc atccaagacg 480
 atgatgatga tgaagatgtt gnataatgta aatatcttnt gatataaatn taatattaaa 540
 aaaaaaaaaa aaaaactcag ggggccgnc ccattgcct ttaggagcga tcaatactgg 600
 ccgcgtttac acgcggttg aaacctgcta ccaattatcn n 641

<210> 1624

<211> 407

<212> DNA

<213> Ctenocephalides felis

<400> 1624

tctccatata aaaccttaaa tctttcaaca aaatgatgaa gtagctgctg agcataatct 60
 aaaagatcat ttaataacgt gttgctacat aaaatttttaa tagcaatatg taaagtaaga 120
 aaatttttat agaaagtcac ttgaaatatg acatgagatt tcaaaactac tggaccacta 180
 tacaataata attgtctaaa ttctgtagct ttccatgggc tcacatatat caatgatcga 240
 ggattcctag caaagtcctt ggatatataa atctttaagc tgcataaaaa attggaaaag 300
 tcattagttt tagcacatgg caaacgaatt ggaagctcac cttcagtcca caaaagcatc 360
 aatctcttaa ctgctcctaa acaaatcaaa ttcatatagt caagtgg 407

<210> 1625

<211> 345

<212> DNA

<213> Ctenocephalides felis

<400> 1625

tcattngngca tganttatgt gctttcagcg tgaatttatt cagtgccaat tatnttcact 60
 tacagaaaag attctcaatc ttgattatcc taaatttccg attangaaaa ttactcangt 120
 agaacttatt acgggngcca caaaatnttc cggttattta agggatgatt gtatatatt 180
 aaacgcattn gtcaaagcag agctctcatt catgataagt cgataaaaca taaaaaatg 240
 tgagtcgatn tcaaccctca aacttacatc ttttagtgng ggtatggagc tatgcaaagg 300
 aaaatctttg caattagatg ttcaaataaa tctcgtttac tgggtg 345

<210> 1626

<211> 77

<212> DNA

<213> Ctenocephalides felis

<400> 1626

cgaacaactt tcgacaatct tattgctccg cttcgcaaca tgattaatgg cagttttttac 60
 tttacggtaa gtgtgac 77

<210> 1627

<211> 285

<212> DNA

<213> Ctenocephalides felis

<400> 1627

gtattgaatt tttctttctc attctgaaag tattctatatt cggatggaga acgaatgctg 60
 cttggcaaaa tcattgatta tattataaat catacgaaca aatttatctc gaatatattat 120
 tatagcgtca tattgatcta ataaaagaaa aaaagcagtt caacataaaa atattggaaa 180
 aagtgcatac attgcaaaaat atccaagtat tgcttataat atcgcaatta tatgtataaa 240
 cttcgcaagt cgagtgcacac gtttaacgta agcgcgggtt gtggt 285

<210> 1628

<211> 436
<212> DNA
<213> Ctenocephalides felis

<400> 1628
tcgtaattaa taaaattaaa cttaaaaacg ttcaaacgct atcaaataat atatattttg 60
ttctcaagtg aaaattgcct tttccagca tatttacata aagattcatt aatattagag 120
aaattttaat aacaaaaaat atatcaaata tttgtaggcc aaccgttgag ttacttcctg 180
aaaaagctgc gttgttaaaa agaatacatta attcatcaca acagctcata cgactattag 240
gctctgatta ctggtcaaag aaagcaaata ccttgatttt tttttaaata ttttgtcttt 300
ttaccttttg ttaaaaaata agaaatatat tataaaatta tattaataat tttccggcaa 360
agaattgtta ttttgctgta attttacatt ttgtaaggca tttttggcta atattccgat 420
catgtcagag agcaga 436

<210> 1629
<211> 103
<212> DNA
<213> Ctenocephalides felis

<400> 1629
gagtgctacg atatatactt tcattgtatt tatttatctg gaatctcgcc acgttaatat 60
cgtctcaaatt tgagtagatt tccgttgcta tctttgataa atg 103

<210> 1630
<211> 436
<212> DNA
<213> Ctenocephalides felis

<400> 1630
ggcttttcaa agcgctttga atatcttgat atcaaaaata atatctgtag gtgtatctac 60
ttgtgcatca gcaaaatatt ttctagagta ttttagtaaa caaatgtggg cgacgtaatt 120
ttcttggaatt attaatcag atctgtttca tatttttagat tttttattat tacaatgaga 180
taagtgatit gaatactttg ttataaattt ctataacctc attaaattta cgaatatttc 240
ctcaatcaac atgataaaaac tcaccaactgg atatctaato tttttgttct aactttatgc 300
atattttgtca tagtaattac taactgttta ttattaaaga aatagatagt aatttcatct 360
tgagaaatga aaaataactt cgtgataaat aattctocag atatttccac ttggaaacat 420
tttggtcttt tcaagt 436

<210> 1631
<211> 281
<212> DNA
<213> Ctenocephalides felis

<400> 1631
aatngngact ttnttgnttc taaaaatctg ataaaatttt aaataacttg aagattaaaa 60

agctttttnaa aattcaacat acaaaaaaat acatgcaaaa gcaaataatac aatttttaaaa 120
aacctgcaan tgtgggncaa cancactnat tcaacattca ccctgatctt tcattctttg 180
attttttata agctacataa antgccaatt ctttcttttc tttgntgata ttacgagtat 240
cgtattccaa tctgtgcatt attatgcgtt caacaagtcg t 281

<210> 1632

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1632

gttgccggtt gtgagggttat cgtgtgcctt gaatcgctcg aatctaagct ccatcggtgct 60
aattatttcg ataactccca ccccgactgg gacatctcga gagtcgggaa gcccctggca 120
aaggctacgg cgattttgtt taaatcagtg tctacagttg aacgggtcca cttggacggg 180
aaacagtgtt catacgagat tattatatat ttaaaattga ttgaaacagt gacaaagtga 240
tatagtaaaa tattttacta actgttctta aggattcgaa tcataagatt tctttacatg 300
atggctgaaa tgaccgccag cacgcgcttc aaacaataac accaatcatt ctccaccaca 360
agtgcaacaa ttgtgaaata aaacttgatt ttattccaat catataaact ttaaatacag 420
tgcaactaat caaaataatt tgcgcgcaat tgtaaaatac ctaagtgtcg ataagtctat 480
atgtgatcag gctaaagcct tgaaaaagaa tcttagtagg aatattagta ttcgtattaa 540
ttaattaat 549

<210> 1633

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1633

gctactccta accaaaaaac acatttttga taagttcgtt agtggcttct gtcggatttt 60
aatttttaat tcaatcttac atttgcaggg tcaaataatt taactatttt tatttaatac 120
agattctaac gataatcttt tattttgtaa tatgtctgaa gaaggaacaa cgagaagaac 180
tacgaggtcg cttgccaggc ggctgagtac tgattcaata tcgcctccag ctgcagggac 240
tcctggcaaa aaagcgaggg cttcaagagt tacgggggtg ccgtctattg cagaaactaa 300
accgaaagca gttagcactc gttaaaccgc aagattaagt actgacttaa atttagaaga 360
acctggaagc agaccatcaa cacctatatc aactgaaagg cgtcgttctc gccgactaag 420
tattgcttag atgaacaacg cccacaatct gtatcaactc tccattgggt ggagttatac 480
aagaagagga agacatcaat atttttagcaa tgaaagatga tataaataat aaatccggta 540
tgngtgtgn 549

<210> 1634

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1634

```

agttacagct cctgttaatg ctttagctga aacaagtcaa acttcatcaa ttttgggtgg 60
tgctaaacca cggaagaac ccactgagaa ataagttatc aagttttaac attaattatt 120
aaccaccata tagaatacca tcttgaatca tgtaataatt ttctgattaa aaattctgca 180
aaactcataa caggcgctga taatcttact cttgcaataa attctttaac tgatatataa 240
aatgtatcaa gttttgtaaa agaaaaatca ataattattg atttacagaa taaaatattt 300
attttgttta aaaattgact aatactttgt aataatatgt aattcttata tatatagatt 360
aaagagttgt tgtagtgctc ttttgttttc aaatagtttt acactaatat atttaataca 420
aaacgcttta caaattttac aataattgat gaaaactatt tgagatttta ttctcgaagt 480
acaacttatg tattaanaaa ngngcnnnnt gnnnnnnntnn cctngggggg gggccggccc 540
cattcnccc

```

<210> 1635

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1635

```

agcntaaata acaagactga cagtttagtt ttaacaattc atcatgggcg atggaagaga 60
tattgaacga cagccattga ttcaaatga tggaactgga agccttagga atcaaggatc 120
ctatacggaa ggttctcaaa ccacgacggg ttccctata ggtcctgatg agttgccacc 180
gtcttaccag ggaagtctgg ccagtggcgt gcccatggtc acttgccagg tgtgtcaggc 240
catggctgat atttcaggca aacgcgaaca gcatgtcgtc aaatgcaatc agtgcaatga 300
agccacacct atccgcaatg caccaccagg caagaagtac gttcgatgtc catgcaactg 360
tttattgatt tgcaaaagt ttatctcaaag gatagcttgt ccgagaccaa attgcaaacg 420
cataataaat ttagcaccta gtcctgtgac accacctgtc ctcacgggtg aaattttcgt 480
gccaggaatg tgcagggttt gtgtgctatt gtggggancc tttttttcaa caccctaaca 540
atgcctcgc

```

<210> 1636

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1636

```

gctaataatg tgacagccat aaatattgta gattaatgta gaataatttg tattgagatt 60
tagattttgt agcatactag aatgttatgt gtgcttgaat aatgcaagtg agggaaacca 120
taatttggtc tgtttttata atacatttta gataataatt attggtgaac tcaatcttgc 180
atatacgccg ctaatgaatt aaaccagcag gcatataatt tttgtactta aatatttata 240
taactaaaac tgatacgggt tacgaaaaac acataactat attattttatg tttctagacc 300
cgcatgaatt aaaacgaaaa cggcaaaaaa ttgacgggga tccaaaacat cttttatggc 360
aactgcaggg tcaaaatcct tctacagta agtcattttc aacttttatt ttttttatca 420
gcaaatcaaa cagggttcaa tgtcagggtg cgggtgaatc cggggtggat gaataaaaa 480
actcatatca tacgcttatt acatataaca ctaccatttt catattatca gtaattttct 540
aggagnata

```

<210> 1637
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1637
 atggcatcct aaacaatata ataatatataat aataatgaat ggcatttctc gctaacagat 60
 attttaatat agcgatttga atagtttttaa tttatttgaa tattgttcag agtgatactt 120
 tttatatattg ctgtaataaa aatgattatt atgataactt atattatgaa agggaaaata 180
 tattttaact ttttaattgat tacccaagag gatattgatt tgtatatatc tacttgaata 240
 tgaatttgaa cagttaacat tatottcaaa tttttaatat aatttaaaat tattggttac 300
 tagcaaaaac gtcaagatgt ctaattacgt gttgaaagtc aaatcaaaag aaggacagca 360
 tattttaaga gatctcaaat cttccatgac tctgggcat cttttactga aactttcatg 420
 ttgacatcga tatctaaacc aatttgcaaa ttttatcggt ttttcgcct aaagcattag 480
 atttatctga tnagagtaag actttaaaagg ngagtgattt nattcaggag atctgtattg 540
 tgaaaaaat 549

<210> 1638
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1638
 gagaagggaa actgatcacc atgaaattcg cagtagcaat tttgggcctg gccctgtgtg 60
 gtttggcatc agctcagttc cagaatggac gcatottaga accaccagta cctgcactct 120
 ggcgcccagg gacgatacac gaacgtagcc cagacggcaa aggatacttc ttctcgtggc 180
 gtgaccacaca attggctggt gttgaggaag attggttggg cgtccgcaac ttctgtcgcc 240
 aacgttgcat ggacagtgtc agtttagaaa ccagtgccga aaatgaatgg atcaagcaaa 300
 gaattgtcaa tggaaatgtc aaatacatct ggaccagcgg tctgtctatgt gacttcaagg 360
 gttgtgaccg accagattta caacctgttt ccgtaaatgg tggttctgga ccgctgaatt 420
 gcaaaaactt gcccaaccac agacagacaa caaaacgact ggtctgaagg agtggtattg 480
 tcttcctcac cagatacaag aattgaacaa ggtggacaac cgaaactgtt tgcagtttga 540
 cactttaca 549

<210> 1639
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1639
 ccccttcccc ccttccccac aaacatcacg tgtattttta gttatgaaaa aaaattgtaa 60
 ttattttgat ttttggattt ttttaaaaaa aaatttcttc tccctaaaaa catcacctga 120
 ttaatggacg catcctattt gtattoctta tataaaaaata aaaaatgtga aatttagata 180
 tactgaatga ttactcgtac caagagtcga aacatataaa taaataatat aaaaatcaat 240
 ttaccatttt caaatttgat gaattggttg caaactatac caaattcctc aattccaatc 300
 atattcatat acaaaaaatc ctatcaaatt ttccgattca tttaaaaccg attacaatca 360

attccattag gcaccagtat ttataaataa aattttgogc atatgtgtga acatatattc 420
 attattttat tagtctgaga aatagatggt gactattoga gagagcagcg aaatgtcgat 480
 atttgccacc tcatcagatg ttggataacc aaccgntaat aaccgatttt tagggggatg 540
 ttaangcct 549

<210> 1640

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1640

tatttttggg tcttttatgt ttacaaaaa ggatttatcg ttttaagttt aaataatgac 60
 aatcttaciaa attaatctaa acaaaaatgt aacaatattg ctttaattaa ataattcggt 120
 tattgttata ttgaatccac aaatatgaat tggtgattat tagcatcggt tatttttggt 180
 gtaaataact tatgcaaagc agagttgatc ttataaaaaca tctaatactt attttattat 240
 acatagtgtg atacttggtt ttattttaaa tacattaciaa actaaatgta gttcatctat 300
 gatttacatg aaaaaaaatt agttattatt tgtagtggt taagacattt tacgcaatat 360
 ggcagtaaat aaatgcgcac actaaaaaatt attattaata tttttatagg aacgaaagtc 420
 tataattcta tacactacat cgctttgtgc aattgaaata atatttttca ttatattgna 480
 tgaatttagt atatcaaaac atttaaaatg gttatatgta tacaggtncat ttattgtaat 540
 aatgagaag 549

<210> 1641

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1641

gaacagttgg ataaaaataa aaattgtgaa ctaaaattta ttttcaaatt tcattaattt 60
 ttaacaaacc cttttccgta atattgacgg aacctgccta agtgaagcaa aggacgatat 120
 cggttgtcgt tggtagtgtg gtgaaactat aaaattgtga ataaaactta aaacatcacc 180
 aaaaataatc cacacacttg cagtaaaciaa attattattt gtctctatag acagaaccaa 240
 atagaagaaa aactcagctg ccaaatacaag attgacataa ctgtcaatta tttttatggt 300
 gatcatttat taatatatca attttgactt tcatcgattc tatctcggcc ccccttccca 360
 ccatgacgct ttcggccaac agcaatgcta ccaatcgctt cgggtcgcag cagggacgta 420
 gcctcaatta gccgccgtgc gaatacaggc cggcncagag gatatgcgtg cgcaagcagt 480
 caaacgttgc aaaatcaaag tgacggtgca agagacagct gnagaatcta ttgacagaga 540
 tacgcgcat 549

<210> 1642

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1642

attagacttg ccacatctaa ataataataa aattagtaaa ataatttgta aatattttatt 60
 taaaaaataa aattaggatt ttttattaat atgaaataat aaataatcaa ataaatttag 120
 tgtaaataat aaaagtgtgc atgtgtcatt cttgattaat attcaacgca attaaagatc 180
 aattttgaat gtatcctctc aaaaattggt gtatgaggag atgactagca aattttttat 240
 aaatgtcgtg gataaatgag tttcgaaaat ttattttgga ttttataaga actgttttcg 300
 aattataata gaggggaagag ctagaaatcc acatatcaaa attttaaatg gacctgttat 360
 agaagaaaat gaaactcaac aaaggaacca tgaaaaaacc ngagttctct acaattgccc 420
 ctgtgtcgaa gaagacgatg atcgagtata tctaatttga atcagatcta cacaaatgag 480
 tggccatcct gcccatttta tagactcaga caagcggagg gcccttggan ggcagatgaa 540
 attcccant 549

<210> 1643

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1643

acatcaatgc aagagaagac accaacaaaa aataacgaat ataaatcgaa atttgcgaaa 60
 ttaaaaattc gtgatgatca gataagttac aatattttgc aattctttta aagtaaatat 120
 ccaaagtttt aacattataa aattaaaaaa aaaaaccaat ggggaatttg gnttaaccaa 180
 tttttgnacc tnnaaagnaa ttnttttttt tagnaagnacc nnntnnaaat tttgnttggg 240
 nccaantaaa aaaaccgngg ncaggnatnt nttttttcnt acctnntgga tnnnttttac 300
 ctnttacnnt ggttttttaac ntatttttaaa annnttttgn tttongaggg gttannttta 360
 nnaaatgnct taaaaatttt aatnttttcn tttnnaggnt tttttggggg aacntttttt 420
 aaaacctent tnttananta ttcnttgga cccgtggnaa ncatttgggg ttantantta 480
 aaggatatng gnnggggtttt 500

<210> 1644

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1644

acacatagca aattaagtct tcgcttgat ttacatgaaa attgccaaaa aaagaatata 60
 ttcattatag gaagtattta ttcaagtatt ttttgatgac tgttctagct gttcatcaat 120
 tcatacttaa aatagttacc ctttttaatt tttacagtat ttaaatttaa tagttggtat 180
 agtattttat aaatttttaatt ttgaagcatt cttttatagg tttggaaatt atattttttac 240
 aaaaaaaaat aaccggtcca attgatttta aacaaaacca taaaaaacta ggtgctatag 300
 taaacagcat ttgatttgat gtatacattg cattgaaatg agtgagagaag caagatgaaa 360
 gcctatccat taatgactta agacttttta gaaatgtttt atatatacat atgtatgcta 420
 gatatttaga tgggtgtcttg taattgaatt agattttacaa ggaaccaaatt gttctacatt 480
 aaaactaaat ttatctctat 500

<210> 1645

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1645

```
acagtttttt ttttcctcaa acacgagcta ttggaaaaca aaattaatta agtttagttg 60
aaagtcaaat tgacctatat atatatatat ctagttttga tatttgtctt acagattatg 120
gttgtcgatt tatatatgtt tttattgaat acttgtgatg tttattattg atttcctttt 180
gtttgttgtt catcaacgtt ctttggttaac aaatggggga atagctagtt aggaacccaa 240
gacgtcatat atctggccga aagcacaatt actgaaggca cacaccaca actacagtct 300
acgctcaaat tcatattaag taaaccaggc tctggacgtg cggccaacaa ttatggatac 360
cgctacgggg acctcaaaca tcggttgaaa gtagcaacaa tttttagagc cgagggcggc 420
tctggtgtga caggggggcg tgtgacgata atcataatta tcgcgtattg ataattattg 480
tcgctgatgg tcgcaacccc                                     500
```

<210> 1646

<211> 277

<212> DNA

<213> Ctenocephalides felis

<400> 1646

```
actgaatgtt acaaattttt acttggatag aaggagcaat tttcgttgcc ctgcaccggc 60
gtttccgcag aatttaataa ttgtttattt tattgcattt aatcctcttt ttttaaaatg 120
atgcatatta taataatata cttttaaatt attattgata caactttttt gcaaaccaaa 180
ataggtatga tcttttaata atttttatcc catttaaaaa aaattctatt caacaaatat 240
ctttttttca atgcaactag gattttatat gttaagt                                     277
```

<210> 1647

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1647

```
acttaagtaa tatgttagta aatttatatt aggaattatg acaaattttg ttatattaga 60
acttatatat attaggcttt acaaaaatgt tatttggatg aactatttta tctattagat 120
ttactttaa acattatagaga taggaaaaaa tctcttaaac cattttgcta aaactttgag 180
aacgaaaaaa taaaacatct acaagacatc aagtcttttc ttttaaaaga gtaacactcg 240
aaaagggagc gttcattctt agaccaaaag aactacaaac atatttatatt ttataatata 300
gaattattaa tagtagtatt tttttactaa tataaatatg ttttaatttca ggttattttg 360
actcgtcatc ctatcaaatt agtcaagaaa ataacgtcaa cagaagtcag aaaagaacca 420
aaaaattttt ctgctcaagt gcaaaaaggg ctacacttat tcacgtgggt gcaacaccac 480
ataaaatacg aatgtggcaa                                     500
```

<210> 1648

<211> 331

<212> DNA

<213> Ctenocephalides felis

<400> 1648

acagtagatt gttttgaaat cggtgccgtc ccgtaagtgt taaatatatg taagcaaaat 60
gattttactc accaatacat catacccat gcaaaaatac ttttatagag taatgcaaca 120
cgcttacctg aaacaaaata aaaattatta aatacattgc aaagaaatat ataaggcat 180
gaagaaaaat tttatgtaac gcaataatta tatgtagtag cagtcttaca aaaatatgta 240
ttaactaaca atatcaatag acaattattt aggggccaat tctgctgtaa aatagaccaa 300
tgtaagtaa gggcttctca tacaaaattg t 331

<210> 1649

<211> 113

<212> DNA

<213> Ctenocephalides felis

<400> 1649

acgagttaat aaacnttnaa atataataag taacatttta aagntgcac ttagtgaaaa 60
tctttaccat gttccttgaa aataataaaa caaantaaac atttgtgcca tgt 113

<210> 1650

<211> 474

<212> DNA

<213> Ctenocephalides felis

<400> 1650

acaggaagtt ccagcaattt gccttaaggc acgatgccat acgccactag tttttgtag 60
ttgtatgttt aattatgcat taatcaaata attttttcat agttcaaaac cagacgggtt 120
tttttttaaaa aaaaaaaga attataaaaa aatatgttca atgtgacagc cagttgtgtt 180
catgcaaggc gacggaaaga gcaactcgtgt cgagcaagcg atttgcccg cacaacatata 240
agtttggctt gacgagtatt tttacngngc ccgcctatag tgtgttaata tgatgcaatt 300
cagtcattat caacacgaga cagtctaata aaatttattt aatttttagct attatatcaa 360
ttaaaaaata ctatacgtct ctatttattt ttgttcgggt tactagaaac tggatgaaat 420
atttagtcat acttttaaga agtaacactt ccaatatgga cgaatttttg ggg 474

<210> 1651

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1651

acatacacac agatatacat acatacctac acnaacacac acacatacat cttttttttc 60
ttaggtatgc caaaatgttc agagggtttt gaaacgtaaa gatatgtaaa aaatacattt 120
tcattttgtt gcgaacatac cctactggaa gtaataaaaa atgontgaat caagcacagt 180
aatgggaaaa aattaactaa aaggttagtt atcgtataac taaattaaat caaagggtg 240
ntttattatt tacagtttct caactacaaa ctatataagt caaactcaaa aaactataaa 300

tacttattcc aagaaattaa taaactttta attcaatgaa taataaaaagc atttccctat 360
 tattingcttc aataattatt ataaactatt aaaaccattt atacattggt tataacttac 420
 aagaaagcan cttaataaac ttgaaatctc taataaacia cattngcaag actttntaat 480
 ccatcaaaaa atacttgaca 500

<210> 1652

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1652

acatgctaag tatcaaggat gacgctgtat gtgaaaaaag tgagtgtttt cgcgtttcct 60
 gttgaaatct ttcttcaatt ttctttgcta caaacttcac ggagttcgag acctttccaa 120
 cgaatgcaaa agattcgtgc gttctggagt tatatogtca ggaaggaaaa cccgtcttat 180
 ttttatataa tagataatat atactatatt attatagtaa tcgggcgtaa catcaataaa 240
 aaacatgaat tttagtgtta aattagaata ttaactaatt tttcgactga atgagggtga 300
 ngaatggagg caacatatgg atgtgaaaaa actagtatga gagtttttag aattttttta 360
 aaattcatat gcttccacta gcatagcctt cattcattgg caatcaattt aactgtaaaa 420
 attaaaaata aataattttt tattaacatt attgtttttt tatgaaaact cttacatatt 480
 atttatttag ttttaatttt 500

<210> 1653

<211> 226

<212> DNA

<213> Ctenocephalides felis

<400> 1653

acttaaaaaat aattttotata aactgtttta gatttgaaaac ttatgcacta aattaaaaat 60
 attgnattga taataagggtg tgattgcat tttatataa aacctcactt aacctagaat 120
 taagtttata cattatacac atcagacttg cttaacagca actattaaaa ataaatcaaa 180
 tatggtatat caaaaatgat atcaaagtaa attggcatat caaagt 226

<210> 1654

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1654

acatttttaaa ttaaatctct aaatgtatat tttttattaa tattatttgn tatctatcat 60
 atgaatgaat tattcgtaat tgcatatac gcttaactat ttctgtttga tcaagcttga 120
 ttttaaaatt ttgagttatt atattttctgt gttcattcac tacatatgta ttatagtttc 180
 tctacacttg tctgcaaaat cattcattaa attataactc atatccaata caaatgatat 240
 gtttgtatatt aaagaactga catctcgaaa cgcaaaaatt taccaagatg accaataata 300
 tttctttcat tttcttatta tgaagaatca ttatttgtgg taatttaatt ttgtatgata 360
 accattgtga tcaatgctgt aacatttgtt aacaattaaa ttatatagtt tatgttgtat 420

cgagcatgca tntagagggc caattncac tatagtgagt gggaaaacna tgcagttgcc 480
cnaactntna cttgcatgac 500

<210> 1658

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1658

actataccgg tgcttaccgt ggcaagatga acgtcccaaa acgtcgctga tcaaattaat 60
agtcctcgtg gctaatttat ttattctgga aaatcgtgag atttggttgt gttcacaaaa 120
tttccgttta ccaaattttc ctctataatg ttcggagtggt tggccgccac ctcgatttgg 180
ttactattgg catgggcagc tatgctaata tttttccttc cgttgatggt cgttggtgta 240
gcagttttgc cgggactgcc attactgatt attcgaaggg tgtgctacgt gcccttcgat 300
tcgatttaaa tttgatttct tcaattaaaa aatcaatttt aaataaggca gtgttctttg 360
aaatagttat ttaatcgtgt catttcatag tagttgtgat attataatttt taaacatata 420
tcttctaata attgataagt atgatattta tacatagtct tacatattaa ggtataatat 480
ataatagata tagtcgtatt 500

<210> 1659

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1659

actataattt caattcaatg catttttgggt nagccaaaaa ttatatgaac catttgtatg 60
tttggttaatt caacagttat tcgctctgga ttcttttaaat tcgaagtgtt actatactga 120
tgatattaca aatctactgc aattaaagat tatttattca ttgcaatatt agtatatagt 180
aatattttatt agctctttga caaatttggc tatcaaaaata attaaacctt ttcaataaat 240
ttttataaga tacatagttt ttatctcttc tacttaataa aattacatca ttatttgaat 300
taagtgggtt atataagtgc aattttactt atttacaata tttttctttg aactcattaa 360
aataaactca atctctaatt ttatgagttg tccatttagt atgaataaat atgaacagtt 420
tcttgaagggt ttttgatctc ggccatacca ttttttcata tattgtctat atacattttt 480
tacaatgact atatatcata 500

<210> 1660

<211> 343

<212> DNA

<213> Ctenocephalides felis

<400> 1660

actagattat cctgatactt ttgcgccatt cctttcgcca tagaactagc aactaatttc 60
tcaccgggaa tagcaaactg atgtgaagca ccacgaagtt tagattcttt aacaacttgc 120
tcattttcta gttcctgcag tttattataa tattcttcgc ccttcttact tttgactggt 180
tgctgccatt ccgtttccgc ttgcttaatt acttttggc tcaaagtgtc tggatttaatt 240

tcaattcctc cttgttgagc caataatgct tgtctttctt cgaaggtctt ctctaattca 300
gttctacac gttctttttg atattgtgtt aggtcgtagt cgt 343

<210> 1661

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1661

ncttgtgcaa aagcaacatt ttgacattat angtnnggan attgaactaa attnaattat 60
aaaantatna ntnantggta aactnacant attgaacatg ttaatnttat attccatggt 120
tagcaaagaa gctcctaatt taaaacaata annnnatncn tgcgcnatca anctttcttg 180
gttgngcatg aagtgtgatc attaaattat aagtattctc aagtaagatc tgaaaactat 240
atcaaaaatg tataattaaa ctaaaaaanat atatttatta tataaatntt cctatngcga 300
cantanncan tttttaatnt naatgagnaa tgtatnaagg tgagnntntg ctctgtgcga 360
tgntatnggn cnttnagana attnaagaat tatggtaant attntngaag ggattgcntt 420
atngnttcct aaatgncctc tggtagttn aaancttgta tgantngaga cacagcaaca 480
actgttgctg nttttatatt 500

<210> 1662

<211> 334

<212> DNA

<213> Ctenocephalides felis

<400> 1662

acactgcaaa atttcaaagc cgaatatctc gaaaactaat agaccaagtg tcataaaatt 60
ttcacagaat tttactaaca ctattgtgca taaacactat gagtttaatc gaaatccgag 120
atgataagac tttttcatca aaaaattttt agngtatttg atcagattca tttntnantt 180
tccggcgggtt ttaaccagga aagcatacga gtattaaaat aattattata tggcgttata 240
tctcgctata tgacctacaa ttaatttcca attnggaccc tntatctgcc ccacacgccg 300
agcaatcgtc aaaaaagtga gaattttttt tggt 334

<210> 1663

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1663

acttaaacca agaaaaaaaa aaagctttta gcctggcggtt gacatataga gaccataaga 60
tcgcaacacg agaacgatgt ctggacattt tcgaactcac atatactagc caccgcggtt 120
gtggcgctt aaaaacgtag ggatgaaatg tttacacaaa aaaagagaca taaatattat 180
cttgctgcgt tacttaaatg tctatgattt gaaatcgaat tctaagagaa aaggacttca 240
acgatattctt acccttgcaa tatgatattt taaaataact ttctttaaaa tattttacgac 300
tatatatataa aaaaaaaaaa aataaactct actcacaaga acgatttcca tgaaacaaca 360
cttaactgta taacataact taatgtatct ggcaatcatc atagattttt aaaaaaaaaa 420

aaaaacaaat tattttatgt attggtgttt acgaaaatga ttatgaataa cacaatacac 480
taaacaattt caataatgtc 500

<210> 1664
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 1664
accgtcaatc actttataag tcctttatat acttgaatat aaaaatgaag caaattgcta 60
ataaaccttt cctcaaaaac atttgatgaa gagatttcga cttctcaatt tagcttcaca 120
attcttcaaa tagagagtga aattacactg tagagactaa aacagaaacg aggcttttca 180
tattttcacg aaacaatgat tacatattgt agactcatgt tcggtaacat ctattctgca 240
taatcatgcg attagttggt ggacacagac tgtagatgtc ctatactttc taagaatttt 300
tatcgaagtg cacaaactag ttacattctt gaccaacaaa tatattaagg gcaggaacgt 360
gaactaatta ttgatctgat caatagcttt tccctaatac ggtgaacgtg ccctattaac 420
tttatactgt aatcttgtaa tgctcttact cggccataaa ataatgatgt ggaaaccgaa 480
gactaaagcc taagcaggtg 500

<210> 1665
<211> 433
<212> DNA
<213> Ctenocephalides felis

<400> 1665
acacaacata ttaagctaag gaactcattg nnaattgac ntatntatat tattnataac 60
taaaagtctg ggagtttaca tatattaatt attttataac agcttgctta aanttgactc 120
gttngctatg caataantac ctaattgcaa tttaaagttt agatctcgaa cttcacanat 180
cntctatta aaagntgttt acagnanttg gttnggatc nantgnntgg caaantaata 240
ntnnaatatn tgtatgnnag atttaatctc cantcatnat cttcatgnat tcatcgaaan 300
cgacagttcc tgatccnna gtatngattt ncgcgatgat nccntccang tcggacgagc 360
tgagtntgag ncgagcgctc ccaagatctc cttcagccgt gctggntgtg angnaaccgc 420
ncttcgtgg cgt 433

<210> 1666
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 1666
acttgtgcaa aagcaacatt ttgacattat aggtttggaa attgaactaa attcaattat 60
aaaaatatta ttaattggta aacttacaat attgaacatg ttaattttat attccatgtt 120
tagcaaagaa gctactaatt taaaacaata aataaatata tgcgcaatca atctcttttg 180
gttgtgcatg aagtgtgatc attaaattat aagtattctc aagtaagatc tgaaaactat 240
atcaaaaatg tataattaaa ctaaaaatat atatttatta tataaatatt tactatagcg 300

acaataaaca atttttaata taaatgagta atgtattaag ttgagttttg ctcgtagcga 360
 tgtttattgt ttatagagat aattaaagaa ttatgttaat gaaaatgaaa tgtaattgaa 420
 tattgcatta aataaattaa ctctgggta gtttaaaatt atgtatgatt tgagacacag 480
 caacaactgt gctgcattat 500

<210> 1667

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1667

actatacttt gacaaatagt ttatcatgta atntactaga ttaggatttc aaataattta 60
 taaactggat atacttctac tnccaatatt tgaatatgat atgaatgcat gtgtgtatgt 120
 atacttattg catattaaga tgcattaaca tagaattaaa tctcttggtt acgtatatnt 180
 aggatatcat acatactcaa aatagtgata tttaacaata aaatataatt ttcttaaacc 240
 tatattaataa tataaataaa tagtaacnac nttaaaataa cctggccatn attnnnagan 300
 ttgntnttcc ttttatnggc cntattann nnatncnttt caaanttggg nnnngnaatn 360
 cnngcncnna cttttatnaa nanantaann ttatgggcnn aanttanncc nnttggcnta 420
 tnngtcnant naatattoca ngngatagc atgttgggcn ngcctantca gcaaattngc 480
 ctanatgggc atgttntaga 500

<210> 1668

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1668

acatacacta agtcatatga aatctcggca agcgttaaaa gcacaatact gtcagttctt 60
 ttgaatttct aaatttttaa actttacttc gagatggacg aaaaatgttc accatccaat 120
 ggccttaggc aataagaaaa attocaactc ttttctaact tgtttgccat catctctctt 180
 cttttcaata agaattgaaa agttataaat ttagcgtgtt tttgaatatg gaatagtgat 240
 aaaaagtctg catttttggtg atatagtgtc tttgcgtata actgogtttt gcttttgaaa 300
 aagtagttct acaagttaat agtttacatt ttagattgaa ccggttcacg agcgtataac 360
 tagtaaactc tgaataattt tctgggctga aaattttaat gtaacaaatc gacaattttt 420
 tagctaacca tgaattttga attttgaata attaaagtta ttttaatcgt cacgtncgcg 480
 cccactcgct tttttggcca 500

<210> 1669

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1669

catgtcaata gttagcatat gtattaagaa ttttaacataa taattnaaac atcaatnaaa 60
 acaatataaa taaataaata attttngtat atcaataaca aattttcttaa ataactaatc 120

acatttataa ccagtcatt gttccttata tttatttttc aatatatcac tgcgtctcaa 180
 ttataaaaact ttgactagac ctgataaaaat attttataca taaaaataact ttgnnttatat 240
 caccaatagt taaactttta aataatttca taatcacaag tgctatgata ttaaattaga 300
 agcattttaat ttatataaac atattaatag taaatttatt atgaaacttg gtaaagttaa 360
 taaatacaca ttaataaaaat tcttttccaa tatatgcttt tttcttcgaa atgcctttcg 420
 atgaatatac attctaagct tctttccaat tgcgtatccgt ccattctatc ctctgacaca 480
 aaattaattt cattccntc 500

<210> 1670

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1670

ncaaactga ccatttttca cgtgacggtg cattgtggtt ttttgttatt aattttgttc 60
 ataaataaca tttcttgat ttgtcaaaaa acaattcggg gtaattgttc ttatatgcaa 120
 gtttcaatta ttttatattt tgggttatat accaattaag taaaatccac tatttttttc 180
 atgtatctct accatttatt attttatata ccttgtagta attacgcaga gcaatgtaa 240
 taattcagat attatttatt cattaaaaca tgacagattt attctcaaga taaattctcg 300
 acggagtgtg atattttcca ctataaaagc tgtaaacaat ttgtaaaaca ttcattattt 360
 acctagaact actgctcata ttctatttaa aaataaatcg taagattatg ttcatttgca 420
 taataaatat tagcaaagt tatagtatta taatngtaa ttatttgcatt aaaggngttt 480
 ataagtaatt agttttgtga 500

<210> 1671

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1671

acaataagga aaattttgca agcgaaagt tttggataaa ctgaaatatac attatgttaa 60
 tgtttcatac actctacaac ttattgattt ttttttctt tttttgaaa tgatttttag 120
 agtttgagtt ctgaatatatt cgaaaaattt agaacacttc aaaagttttg aaatattaat 180
 gatgaatgtg gcatgttctg taaataattc aacaaactaa atattttata ctagattota 240
 gttggataaa aaataattcc tgattttataa tatcattacc aaaatttctc taaacaattt 300
 accgtaggca aaattttgtt agaatatattg tgttttttta gnaatctcaa aanggnataa 360
 attcccaaaa attcccattn ttggggantt nttntcttaa tnttggaana aaaatggngg 420
 tttntttcca anatctttna aaaggggtta attanttccc aannggggtt tngngaataaa 480
 nattcaaaat tttgnccttt 500

<210> 1672

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1672

actaattgat tattgttatt ctgcaagata tgatgttccg aattattact gttccaatta 60
attctttttac gaagtataac tcatatttat ttttactacta acatacttgt tactctctag 120
acatgttttt gtttgcggtt tgcgatttaa ttacttgtgt gttttgtttc cactgaagaa 180
gagtcaaatt ggaactcgaa ccgtatggat ctaataaatg tattttaaga aacatctctt 240
agttttcttt ctattcatta tctggataga tgactgttaa aaagtttgtg ttatctataa 300
attaattttct tgaaggcggt aacatcaagc ntagagcggg ggtaggtat tcnannncan 360
aggggggaaac attatttgaa acatatttgt aattttcgta tagaaaggga gtatcagttc 420
gcttattaat actaagtttg gctaagaaaa taaaaatcga ttccgcatag cgctttatga 480
gactttcgcct catgataaaa 500

<210> 1673

<211> 441

<212> DNA

<213> Ctenocephalides felis

<400> 1673

aaaaaactga ggtcgaagca taagtgcgc cttccactat cgcttattaa ttatactttt 60
actatgtatt ataaatgaat tgaaaatatt ttttatctca aatatctaaa ttgttacatc 120
tatacaggcg tttatcaaca tcaacagtag aatgcctttc tgatcttttg taaaacaact 180
tatattatca actgattttt caaaactttt gtttttttct atctgatatg ttttttgata 240
taacatgtta atgattgata taacttcaac aataaatgac atcatatttc agagaatcag 300
ttgccacaaa aaataattta ttaatatgt atgtttgtaa atttgttaag aaaagaaaag 360
caatatcttg aaaacatata tgtatataat attttaaaaa aaaaaagnnn nnnncnnnna 420
nntntnnnaa anannaaaaa a 441

<210> 1674

<211> 262

<212> DNA

<213> Ctenocephalides felis

<400> 1674

actaggcaaa tcaatattat ccttttcgca ttcagagttc tgcaaaacac tttccgaacg 60
taattttctgc atttcccaaa aaagtcttct ataaaaatgt ctatctgaca cagtcgcaat 120
gtgtttgcga atttttttat cagacatatt tatttataca attttttttg acaaattaca 180
gagtcacaaa acaaacaaat tacgaatata ttatattcta atattgttta gaattttagt 240
agcataagta tacgtataca gt 262

<210> 1675

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1675

acatttaata aaatttattg taaggttctg taggagaatg gaaaacgata ttgttaatac 60

ataattaaat ataaatagat ttatctaaaa gcagttcgtc ttatgagaat ttatattgaa 240
atgctatgtt aacttgtagt gccgtgttgt attttacaaa ataaaacttc ttacctaaag 300
tggtgttggt agaagtgttt ccaaaaccaa atgtgctagt tgctggtttg ttaaattgtat 360
tattaaataa agagtttgaa gtagttgttt gaccaaacc tccaaaacca gt 412

<210> 1682

<211> 380

<212> DNA

<213> Ctenocephalides felis

<400> 1682

acaacaggca ccaccagaga acatggaatc cgaacgcca catttcgtcc aaccaagatc 60
tgtgcgcagc atcaaggaga atccccttcg ccgcgaaaaa cgcgtaaga gatgcgcctg 120
caactgcgaa tgttaaacaa aaacccaag aaattattta cgaaagcatt gataaaatca 180
ccgctaaacg gaaataattt ttaattcaat aaaaaatatt ttgttaaac atattcggat 240
attaacaaca tgttttatttc ttttaatttta aactaatgca gttattaatt gtataaataa 300
aattagagat ttttattaaa gaatgacgaa aagtttagat caaagtcttg tatatatgtt 360
cttttaaaac tgttacacgt 380

<210> 1683

<211> 182

<212> DNA

<213> Ctenocephalides felis

<400> 1683

acaaaacaaa aattcggccc agtaagggt gaaataaaaa ttacattta tccgaaatta 60
aaatatttct aaatttaaca cttctgcata aagtttagtgt tttagtttat gattatatgc 120
agttattttt cccggcaatt ttaaattaca tgtgaaaacg cctagctaaa tctaactaca 180
gc 182

<210> 1684

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1684

gacgtgcnan tttancacna nnaantgggg gttgaanccn acctgncnca aacoggttag 60
agctcagatc atggngant ganggganga acagaccana taaagcaagt tctggattng 120
anaantantt tacaccaaca ncnacggcgc gancaatttt ggcggnangt nctactaana 180
gtaangacgc tgccatccct tangcggcgt aacntnntan gcacacacag nggccaattt 240
tcaattatat atgcttaatn aaaagangct tgntaagctc atccggtcnn cccaatgaaa 300
tatangnagc tanaanaaca tantctant ccaaancnat ntctatacnt ctntaannct 360
tnaangggtn ntctcgtctn nttnnangtcg acgctcatnn catnanaggg nccttctatn 420
cnattgtgng aagacagcaa tatttgntcn atnattantc ngcttncaan ggaaaaacct 480
ntgttatgct cttttggcag 500

<210> 1685
 <211> 377
 <212> DNA
 <213> Ctenocephalides felis

<400> 1685
 accaaaacggtt aagttactaa cagaactttg gaaataccta cagttaaaat caaatttggtt 60
 tcacgcgcac ccatgctcag aatatcaaaa ataataaatg aatttgcttc tgagattaat 120
 atctttgggtc tgtcgatgac aaatataaaa aatcaagcca gaaaaattat ccttaaaaaga 180
 ctgtcttaaa tagtgattta tagtaatttg attaaatggt taattttatt agttttttatt 240
 taatgttata tatttgtagt ttatattaag tggtatgtat atatacaaag ctatctatga 300
 actcttaata ctctaatttt ctcacatatt atctctttaa tttataattt gtagacttca 360
 aaatgtaact gtattgt 377

<210> 1686
 <211> 333
 <212> DNA
 <213> Ctenocephalides felis

<400> 1686
 gnncntttat caagtagatc cttattggtt ttaataaata ancataaaat tattctacat 60
 aatgtcttca nngcgccctt ttgttagaag caccgtaaat cgcatgaatg ctgttcgttg 120
 acaatgtaga aacagtcctt acggtcatca tggacctcca gcagattatg ttcctccatc 180
 catgaatgag ctaccaactc cacaaggatc ctggcaagct aaacacgatg cccgccaaag 240
 gaaatataat gcaacccttc ttgctggcgt tgggtgtcttt actggaactc tcatttttat 300
 gaaagcaaca gggttcgact tccactacta tcc 333

<210> 1687
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1687
 acattttactt ottacactgt atctggaaaa aatactgatt tacgctaact aattttaagc 60
 atagtgggtt tgttttgact tatagtataa atacatgaag cattactcaa aagggatcta 120
 gtocacaggc aagattttta tttaacagat tatagtaatg cgaaaagatt tagatctgcc 180
 ataaagtaac tgaaatggcg aatcaatctc gcaccaaaca gtattttttc agaccgttat 240
 aagtgccatc aatattatgt gottcgtaat cgcataataa atctcgagat agaccagatg 300
 gctccactta gacgaattta tacgagattc taaataattt attgtctatc aacctaatca 360
 tatataaagt taataaccca attcagtttt ctgttaactg tggcaaagt ttgttttagg 420
 gaccacacct aaccaaggaa ttcggttgag aaatccacac gttcttggtg tatctgtggc 480
 atcaaaaaatg aaatatttta 500

<210> 1688
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1688
 actaacattg ttgttgattg tttctatatg tgactaacta ttggttgaga ttaaaaacta 60
 atgaactgac ttctctcctt ttaacttccc gtagggtaag ttatagtaat cgcaaaaaaa 120
 attttttata tttcacgttt cagaggtttc taaacatttt gaaacgtaaa gatataataa 180
 aattttcatt ttcgattttt ttttttgoga ttactataac ttgccctatg ggaagttgga 240
 aaaattaagc tatgtatata catttttgaa attgattcac gatttttgga caattttaca 300
 cttttctgat aattataaaa aaaaccgctc gcctgatcgt tgcgcaaaac taataaacgc 360
 taactcacta agttaaataag aatgggtttta gtttttttca gtagaaagga gaaaacttgc 420
 ttaactacac tattttctaa atttggactt attcgattca gaatgacttg aacgttgatg 480
 aaacctaata ttagcccatc 500

<210> 1689
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1689
 accgccacat gagcactaag ggagcgccaa ttaatcacgt gatcgatttt ttttaaggatt 60
 tttaaacctt tgcccttggt gatacggtgt gatatccaaa aattttctga tatttttcac 120
 ttgtgaattt agactgntga aaaattttaa agtttactat tgtttcatca tatcataaaa 180
 aattattatc tcgctcttca ataaaacatg gatttaaaaa ttgaaataga agatccaagt 240
 taaatgttgc attatcatta tttaatccag caataaatat atctgcacca aaatttgcct 300
 caatacaatt tgtattagtt gcaataaaaa ccctccttat aaatttcaaa aatcacttta 360
 ataatatcga ttactaacga ttattatttt taatctctta atcataggat taaaaggnca 420
 cgtagccgga gtcacatgca tcgccaacta ccggattagt aatagatcac atagaattag 480
 aaagaacggc catttagaag 500

<210> 1690
 <211> 110
 <212> DNA
 <213> Ctenocephalides felis

<400> 1690
 acaaactttg taaaaattta gttaataagt tacttgtaag ccattttattt ataacattca 60
 aaacatctcg taagcaacat tttaatggga aaattatttt accctcacgg 110

<210> 1691
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1691

```
acgagtgatta taatatctttg aatttattaa cgcagcaatc ttgacccaat tatctggtaa 60
aattatactc ttttctcttt gaaaatatac tgtttgattt tcaaaaaagt atgcatttca 120
cacattttat gagtagttgt gtgaaacaat tggatttcaa attattttta cttaaaaggc 180
taataattat atattatttg atatcaatat taagctgtag tgatatccat tttcacttga 240
tagattacaa tgtaatttca agtaaaaaata ttctaaaaaa ggacccattt attataatat 300
gttattagtg ttagaaaaaa actgaaaaat agatcaaata tagataaaac aaccggattg 360
cctcctaaaa agtcacgttg ttaagtcact tgcttacatt tttagctcat agaattctca 420
tgttctgatt gatgttcaaa aaattcaacg gtttctccgt agatcagtgg tagagctttg 480
ggattcaatc taaatccaag                                     500
```

<210> 1692

<211> 351

<212> DNA

<213> Ctenocephalides felis

<400> 1692

```
ncgcgttgta tttcacacta gatcttgccct gccgagcatg tttttatttt ttacaaccaa 60
cagtagntta tatgatagat gcaaatattg aattaaacaa aaatcaaagc catagttagg 120
ttacatccta aaaaaaattt tggtaaaaaga taatacaaaa tatcttagaa ttcaatccga 180
gtcattgaag cattttattat tgattagcaa aaaaatatga aataattaat aaatattcca 240
aatcaaata tagaatctat ctatatattga tatcaaacac aataatactt tacaagtatg 300
ttcatatcag ttttaactta tagaattttg ataggaaaaa tottaagaag t                                     351
```

<210> 1693

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1693

```
acnnagtagt attgaagatc ttttgnccct tggtgattnt tcattgacta tacagngtnc 60
anncttgttt aatatctgaa nnataaanat anatatatat aattatcaga ggtatttata 120
ttaataatat atacctntga aattatttca gttcccatag aactccctaa tttattataa 180
agctcgccga gatttgaaaa tgctgatgat cgaaccacaaa aatcctcatc atgtgtgcc 240
ctcagaaaag tattaagaaa tactgtttta tacttttgga caattgattt ttctggaaaa 300
taagataatt ataaaaatcc atctctaata ttttagcaac tgaattaagc acctgcatta 360
aatattaatt ttactaatgc ttcaccaact tttaacttta gctcttcttt tccatccttc 420
tgaaatttat catgtcgatt atttaaatat tcttgtgtca gcaattcaat tcactctctg 480
gcatactttg gaaacttctg                                     500
```

<210> 1694

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1694

```

attagctgta gcagcattgc ttgagttttg agttgataac ctgcaaccta gcctgcgact 60
tctgttctat tgataaagga gaaataatta ttttatgtcc aaattacagg gtgataaaaac 120
ccattgacgt caatttgaaa aaaaattcaa taaaaaaaca atggacagga ggatgatata 180
ttaatagaat gtgcctttat atcaataatt tcgaccacaa aactgcctt ttatgaatta 240
aaatgtcttt aaaagaatgt gaaagtgata taaaacattt aaaatcagaa tctatgttat 300
ttgcatgtga agaaaattcc aaagaaaaca gtgcaaacta tttaaatgga aaacaaccaa 360
tcaagaatgt gagtaataaa atattaaaaa actgtcaaaa tgtgacagct ccattgaggg 420
aaatataaaa aatagcagcg atattgcacg aaaacgatgg aagatattag caaaagccct 480
aaataaaccg gcacangcat caatggaaga tatttctgtg cgtagattca caccttcgtg 540
tattaaatc

```

<210> 1695

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1695

```

gcgogaacaa caacagttca gtgcgaattg ataaagttat cagcaaaaaa taataaaata 60
acagtaataa tacttgtcga taatttttaa cttgtgcatt tattactagt ttatttccag 120
aagtagaaat aagttggctc gactattgga ggaggtttat ttactcataa aacgtaaaga 180
aattaacatg taattacagg tcacaaatat ataattagca aatacgtaat ttagctagag 240
tcattcgtgc gtaaaactaca gcaccgatca tttcaaagga aatcattggg aaatttttac 300
aatgtggata ccgttgTTTT ttatttttaa tatcgcggtg gtatacgag gaaaattcga 360
agaaatctat gcttggaag acgtagattt tgtgtggcct tctaataaaa taaaagaaga 420
atatattaaa aatggtcata catcaaggaa aataatctta tcttggaat ggccaggtgg 480
caagataagt ttttctcaca attccagatg gaaaagtgga gtacctcaca ttggctatat 540
ccacttaat

```

<210> 1696

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1696

```

gaggagtcgg tccttttagcc tggggtacag aaacacatcg aaaaccgcag acgcttcac 60
caaactctgag tccaaaattc ttccatagat cgccaagaga agcattgaga agagtcacta 120
gtctattgat caggaaaggg gcagctgggt gaggcacgcc ccgtgactcg cgtaaagaac 180
gcgagggcag cgtgttcccg atgccgcttg gacaaacggt gcatagggaa gctttagagg 240
aagtgggtgcc taaacaaaga agaggatttt tgaaaaactt ttttaagaaa tctaaacatt 300
actcactgga ccagtaaata atcgaaaagt tgacaattta ccgagttcta tgttttttag 360
gcataagata atatgtacac tgccctcaac tttagtccta accataatat tagcattgaa 420
tactactgta gttaccogtt ttaggttgta ggattattta tttattctaa taatgaatta 480
caattaaccg tctgcatatg gaacgaaggg gaagtaagac agtttgcaat aaaatagtcg 540
ctgagaaat

```

<210> 1697
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1697
 aattgatgaa gcacatgaca actctagctc ttctggtgat tgcattttga tagaggatga 60
 tcctattgca gatactggaa ataaccaata tcttaagttt gggaaagata ttgaattaat 120
 acgtatgggt gaatcaatgg cacagaatgt cgtgtctcct actgtttacaa ctcctaacng 180
 aggaaccatg ccaaggaaac gaggaagacc aagaaaagat gctaacttaa ttgcgcacaaa 240
 gaaagaacaa cttgctcaag aaatgctaca aaacagtctc tttccagcac agcatatgct 300
 tgaaggtcta atgactggat ctggtgaaag cccagttaga acaagtcgta gaagtaccag 360
 aggacgatca tcagtgggta aaggaggtat gatttctacc acaccaaggg ggctgtggcag 420
 aggccgtggc tctaaacagc aagctcttca gggttcaatg gaacagcaga ggattcaaca 480
 natgctgaat atccaggaca aatcattcag cagcaagctt cgggtgataa tgccagggtgc 540
 atgaaaagt 549

<210> 1698
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1698
 ccgtaaatc atattctaaa cgcacttgcg aatactttta ttcgacattg taacgttgac 60
 tatgcttatt ctgtgagaat tttcatgttt tccaaaaatt ttcacaaaac tgaaagagt 120
 ctcccgtaaa ttcacattct aaacacattt gogaataactt ttatgogact ttgtcactta 180
 gactgtgctt atcctgggag aattttcatg ttttccaaaa atttgacaaa aagtgaacaaa 240
 gtgcttcagt tcagtcacat tctaaacgca tgtgtgaaca catttgtagc acgttttcaa 300
 aaaattttca caaaattgaa aaaagtgttc ccgtaaatc acattctaaa cgcatttgct 360
 aatactttta tgctactttg tcacttagac tgtgcttata ctgggtattt tttcacattt 420
 tcaccagaaa aaaatgtttc gcttcacaca tacttggaag aatgctcttg taaatcagat 480
 tgggtatttg tcttttgagg gtgggattgg tgnaaacgct gacctacaca atcgtgctac 540
 aactcatat 549

<210> 1699
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1699
 atttggtcgg tgtacgatgc ctccgaagcg tctttgaagt ggtcaatgtt catggggctc 60
 aactgttcct ataggctcac cggccagttt gccttacgat cagtaatgaa ctagaatcac 120
 tttaaatacc ttgcatcaa acaattttta aatagtacgt aatttacaat tgtaaacaaa 180
 attgtcattg tatatactta tatgtgtata tgtatacaca tatatttata tagttattta 240

tacatattat atataatata tatgaatatg tatatatggt gttatcgata aaattaattt 300
 tcactaacac attgtaggt ttttaatat gttttaaaact tcatttcgca attttatata 360
 aatatgatag ataaaatggt gtcacgataa tagttgattt gaatatatat gtagatagag 420
 aatgcaatca tttggatgat atatttccca aagtgcaatg tttattgcta agatatattt 480
 acataggatca tgtatctagt catgtattca agttactatt cgtgnaatga ataatacagag 540
 tatttggtgta 549

<210> 1700

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1700

atogacttaa taagatnccat acgaaagtgg aattgattaa gaaacgnagg tccttaataa 60
 aagacatagg accttaataa gagatacagg cccttaataa gagatataga ccctttgatg 120
 agacgcagtc gacgcagtag ctctgccaac ccttaggaaa gacggtggag tcgctgggtg 180
 gggatatagt gtgttcgtga attttgtgca aaggaatagt gaaataagag atttgttttag 240
 tgaatattgt aacactgggt gttctactgt tgctgtttta ttatttagtg aagaggaaaag 300
 ccaaaacaat gggttcgtcc cagaaagtcc ctttgggcag ttgctgccgt tgctacactc 360
 tacggacggg caccatcttc agtgggtgtaa tgggaatatt attggcgggtg gtcgcttaat 420
 attgatgttt gcaactcggc gagttcaaga caataacat agtcagtctg catcgtggat 480
 cgtaaagata tattaccatt aatctacctg actgtctcat atcgggtatgt tgatatagga 540
 gccgtaagc 549

<210> 1701

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1701

gcggtaacgt cattcattgc aacattaata tgggtgttcg tttacctgct gggaattcga 60
 gaggtgctac aacttcccat caactggctg ttgacggagc tgggtaaacac tggcatcatc 120
 accgtgctat atacgatcgc tttcattgtg cagttagcga aatgggtccc ggggtggctg 180
 gttcattcgt cgcacaaac attacggcgg gagtttttgg aattttcaat gcattggcgt 240
 atgctgccgg agtttacttt ttgcacttgg aatggaaaag cagcggcgggt gcactacga 300
 actagtcctg gttattatag ttcatttact caacaccggc tgttgatttc atatcaacta 360
 tttaggataa aattcttatt atatttatcg ccaaacagtt tgtatgtata agtacaacaa 420
 attcgttgaa gaattatgtc gaaataacga atataaaatt tatatttttc taaatgtttc 480
 tatatgaatg gttttatata aaaattgata caatatttca taatacctga tgaattatat 540
 agctggata 549

<210> 1702

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1702

aataacgctg ttgcnnttnc tggaactgta ctggcagcaa agcganccgg cgcgggcggaac 60
 agtgggttgg ctgcgaatgt taaaacgtct gcgcaaagcg cggaaccac ggcctttacg 120
 ctttaagtcca ttgcatatgg atgtccacgc cggaaattta gtgcatagcg cgtcaggggt 180
 aaaactcatc gactgggagt atgccggaga tggatgatatc gcgctggaac tggcgggcgg 240
 gtgggtggaa aatactgaac agcaccggca attggtcaat gactatgcca ctgcgcgcaa 300
 gatttatccg gcgcaattat ggcgtcaggt caggcgatgg ttccctggc tgctgatgct 360
 caaagcaggg tggtttgagt accgctggcg acaaaccggc gatcaacaat ttatcaggct 420
 ggccgatgac acctggcggc agctattaat ttcccgaga catgaccctt ttagcaactcg 480
 gtatcaacca taaaacggac ctgtatcgtg gaggggggnc cgggcccaat tcgcctatag 540
 tgagtcat

<210> 1703

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1703

gctataccca ccactagaac ctgatcctgt ctttagacgg agagtttttg ggcctgattc 60
 tatttttaaac ggaacacca aagataaagt agatagagta cggggaaatg attcaaaatt 120
 agttataacg gcaatccaag gtttggtagc agatgttgat caaacaagag ctgctgtaca 180
 aaaccaacat attgaagatt caacacgaaa tactagtgtg gaggaccatg tgcattttaa 240
 tgggaatatt aagaccagtg acttagttaa atcgaaaaca tcagaccoga ctattaattc 300
 aaaagttcat ggagaagtag aacataataa aaatttcaca caattggatc aggaaattga 360
 agacaaacct acagttaaga ttttgggcat ggagatgact acgcagtgcg aaggtggcag 420
 aaatttagtc aaccaagttc accaattcct tatcagctcc aagaccagaa caattgtgcc 480
 atcaatatat ttggaggact tcccataatc cagttttggg cagaattgac cacacagaat 540
 tctccgttc

<210> 1704

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1704

agaatcagct gtcacttata ttggttacat tattctgtat attttcaaga tgcttcaata 60
 taaatattat gatacgccag atggccaaga tttaataaaa aaattattta taactggaaa 120
 atatgctact ttaactggct taggcattct atcattagat gtgcttcttt attcaaagcc 180
 taaagggtat ttggaagcat taggaagata tgcaacagtt acggggcctc ttgtgggaat 240
 ggctgctgtt tttaacaattg gtacctatgt agctaccaat gttcgtgaaa aagatgacta 300
 taagaattat gtatgtgggg ccacttcagc tggttgtcta tggggcgctt tacgcagaag 360
 ctatattaca gcagtattca gttcttttagc gttttcacta gctggtgtta tcaagaaaaa 420
 ggcaatagag aatgattata cattatttcc tcacctaga gacattttgt ggtcattgtg 480
 gagccaaaag ccgatttact atcttaaaag acgccaaggg tggcccaggg gaaaatgata 540
 acataaatt

<210> 1705
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1705
 agattccttag tgcgatatag gatataacat cacaattagt gaaattgatt tgaagggaaa 60
 aatgtcggaa acgagcgagg gcgtccatcc gttggtatgg tccgcgggtt tcattgcctt 120
 taccctcttg ttggcgcaag tatgccgcat ggccgcctcc aggacgcagc gcggaatgat 180
 ccgatccttg attttggaag gaatcgccgc cgctgaactt tgtgcttcct gcttcgaatt 240
 gatcatagtt gccgacaact acggtgtatc tatgtacgct attttcctgt tcgtcctgac 300
 gatatggttg tccatggttt ggggcgatgc cactgcctgc ccgtatacgc ttctggaaga 360
 tgctcgtgaa gacaaagcta cattgcgcga agctgactga aaacttgggc acaactagtt 420
 ggcggtgtct gatatttcgt atgtcaatta ttttgggtatt tggagcttct caacgcatac 480
 aggaagagca tttgaaaact gacggtgatt tacaggtatc tctatgctag gaacgnaata 540
 gaagattgc 549

<210> 1706
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1706
 gagagagaga gagactgttc gaggaagcaa tgaaaagtcc acttaacgcc gaacctgtaa 60
 ataaatcatt coatcagtat ttgaagccgt ttttgcaatc caatctgtga aaagaaaata 120
 ttctacattt ttctagataa agtggaatga attgaaaata ttaaggagtg cacgtgtttt 180
 gttttgcgaa atgctatatt atctgtccat ttatacacia gtattcagag attaaaaaat 240
 caattactta aatcttattt tgaatgccac atatttatta caaagggctt caactataaa 300
 tttatttttag atatatactt atcaggatat acctgataat tatgtctctt ttctgagcat 360
 ataatgatgc attcacaaaa caattttgaa caaaattaga aaaatgatat aaaatgtaaa 420
 tgacctattc ctaaatcatt gttcatatt atttgcctc ctttttttct cagcggttta 480
 ttatagtaat atgatttgtg aggaatttat cttaaggagc atttgtaatg aattagaagt 540
 gttagatca 549

<210> 1707
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1707
 gagagagaga gagagagaac tagtctcgag ttttttatgt cgcgtttttg tatgtgctat 60
 aatttacatg ttgattattg aatcttggtc ttccatttat ttgaaaataa aattcatatc 120
 ttagttattt aataataata acctcaaagt ttatgacagc cagtttcata acattgctag 180
 tggtagagat tattagttag gttttatcag atagtgcacc tcttaataat ctgacagcag 240

aaaaaataac aaaatatgtc agattcogatg tcacttcatt ccacatcggc aaaattgatt 300
 gtggaaaatc ctttatggga gcaaaatacg ttcgttggtc ggttccgtca cttcttatgg 360
 atgaccgatt ggcgatcctg ttttgcttca gaacgtgatc tcgataaagc agaagagttg 420
 ataaaaaaat gcaaacgcgg tgaaggatgc ggtgatgcgc aagggtgcgc ttgattaccc 480
 aagagctata tgaatcacct tccccggcac tggagaaaaac aaatctttcg accatgtatt 540
 cagtgcccg 549

<210> 1708

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1708

ataaaatgac aaactctcttg ataatcgcgt cgcaaaaaaa catttatacct ttcaaaccga 60
 tcacaaaaac acctaaatta accagcattg tgaataaagt gtaagaaccg acacaagact 120
 attaatacaa tgaccagtgt caatctgaca agaagatgtg tcctgtttgg gtggaagcat 180
 tttgccaaaa caagaaccaa cagcctcata tactcttccc agagacaact tattacacct 240
 gtgccccaga tatctgtgtt gtcttcaagt tttatcaaaa gcagattcta ttcgacacag 300
 aaaaatgaac agagtgtctat gaaaccagac gatgatgatt ctacggataa agacaaggat 360
 aaggaagctg ttaagaagga ggaggatgtt aagaaaatgg gtttgtaag aagtttaaac 420
 aaatgtacag ggattctgga tgtgctgatc cggtgcatgt tgcncttcta cgtgctgggc 480
 tgncatattta ctcccga aaa agtggtgtgg tgtgatagca tcctggatcg tcaagcagtc 540
 tgactatcg 549

<210> 1709

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1709

cttgaataac acatcacaca aaaataaaat tatctagtag taaatattct attttgttta 60
 tcaaaatgtt taacataact catataaaca ctataacaac ccaagaattt tgcgaaaaat 120
 tcaacaatgt catagaacac taccoggggg ctgctgaaga catggctaag caaagacctt 180
 tcgaaacac cgaagatttg atacagaaat ttagtgatta tttggaaaat ttaccaaaaa 240
 cagaaaaaga gctgatttta aaactgcac cagatttagc tggaagattg cttgatactg 300
 gcaatctgac acctgagtcg cagaaggagc aggaggcggc aggtttgcac aaattgtctc 360
 aagaggaaaa acagttgatg accgacttga atttagagta caaaaagaaa tttggtttcc 420
 ctttgtcatt gtagctcgtg aaaacaaagc tgcagcaatc ttaaaccgct aaaacacgtt 480
 tactaaatac aagagaccaa gactctctgc cggataataa gtcaaagcta tcagattgga 540
 atcttactt 549

<210> 1710

<211> 549

<212> DNA

<213> Ctenocephalides felis

[illegible]

<210> 1713
 <211> 506
 <212> DNA
 <213> Ctenocephalides felis

<400> 1713
 gtnttagaga gggtatttaa gattgttata ttttcataaa tatctcggac atggctacta 60
 agttttattgt aaaatgtggt attgccgggg gcatagttaa tcaatcagtt gaccaaggac 120
 tatggggtag cagttctaga acaattgaac tttatgaaga tttatctaaa ctctgtggaac 180
 cagtaaccaa agaagttaag caaaagattg agcttcacaga tttgcctaca tctggtgaag 240
 ttggtttcat tgcaacttat tattggaatg caggtgtgaa agctacattt gcatttttaa 300
 aagaatttcc aacgaatact gctcgattgg gatgcaaata ttataattat attgtaaata 360
 atcctgaaat aaaaaaattg caggagcaaa cagaaacaaa aacagaaaag aattgatatg 420
 tatatagaaa aaaatcatga ttatggatta tgtagataat atttaataat aaatgctata 480
 catcttaaaa aaaaaaaaaa aaaaaa 506

<210> 1714
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1714
 gagttttttt tttttttttt tgaaaaatat aactaagta attacattta tattcaattt 60
 acatttgtac atcattgtaa ttgactacga attaacagca atgataaaat actttatata 120
 tgtatatata tatatatattg aaaatctgtg taaaaccogt tacaaaaata ntatacanga 180
 caaaaaaaat attacatcat ggcaacctcg actgtccatc tntcaattaa aatctacact 240
 atcttttgtt tgttattaac attttcttat tggatttaat tattaattta aatgctttca 300
 atgattcaat tagcggaatc attttgcttt ggatatcttt tcacatatct cgtttgtgaa 360
 ttctgaacac ttagcggtgc tcctaaatca cctgttaggt atttggttc acggattgct 420
 cgaaggctgc tgtttaatta agtctgcgtg tttgaaggtc atgtgctcag catcattcgg 480
 aggatacaag agggcagtg ggttgctttg cttgccgctt gctgggtgnc gtgccagatc 540
 aaangcgtc 549

<210> 1715
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1715
 aantntcgtc tgtgaatatt aggaaaaagg cgggttttaa agaatttgca attgatatta 60
 agtggttttt tatttaatta gttaagtgt tatataagt caaaatcatg acgttaatag 120
 tgaaatggct cagttctttt ctgctgatcg catccttggc attagcacia gtgaccccca 180
 aggacccgc ctgcatanaa ggcttcgatg gcaacatcca cgccctggac gcggctgaat 240
 tggacttctc ttacgaatg ttagctgctg cagttcgatc tgcacctggt caaagtgtat 300

ttttttcacc ttacagcatt tatcaagctt tgctcttagc gtatttctct agtgctaacc 360
 ataccgaagc taacttgaag aaaacattag ctatcgagga acatgtgcc aactacaag 420
 ttctgcatgg atataacttt gtgagaaaaa tgcttggata tagaacgaat caatcatatg 480
 aatcaatntg ctgtcgcttt tgtactaaga tgaccanttn ggattgattc aagctgcatg 540
 agagacaaa 549

<210> 1716

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1716

attcnatgat acaattttgt ataaattaga atggccagga agaactgacg aattttttaga 60
 acctccaggt agtgagtcta tgttcatcac aacagctgat aaagaacgat atcaatgttt 120
 tgttcctaaa atctcaacac cagagtctga aaaaaattta ccatatagtg gaccaactgc 180
 gttagaatta ttggcacctt tattcacaca aactgcttgt tcatatcgtg ttgaaagcta 240
 ttggacatat aagctttgcc atgggcggta tgtgcaacaa tatcatgaag aacgagaagg 300
 gaaaaagggtg aaaactcaag aatacttttt gggaaagtgg tctgctgaaa ggcatgatga 360
 attattggct gaaatttcaa aagcagaaaa aagctcagaa cctttgcgaa ccacaaaaat 420
 tgaatcagca gtttgctttt gtagaagtag ttatgacaga aggtctttat gtgatttaaa 480
 taataaaaaa cgagttacaa gagttctgat gttgtatgca atggaaacat gaaattattc 540
 ctaaagaaa 549

<210> 1717

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1717

aataccggtg gcgaaggcgg cccoctggac gaagactgac gctcaggtgc gaaagcgtgg 60
 ggagcaaaca ggattagata ccctggtagt ccacgccgta aacgatgtcg acttgagggt 120
 tgtgcccttg aggcgtggct tccggagcta acgcgttaag tcgaccgcct ggggagtagc 180
 gccgcaaggt taaaactcaa atgaattgac gggggcccgc acaagcgggtg gagcatgtgg 240
 tttaattcga tgcaacgcga agaaccttac ctggtcttga catccacaga actttccaga 300
 gatggattgg tgccttcggg aactgtgaga cagggtgctgc atggctgtcg tcagctcgtg 360
 ttgtgaaatg ttgggttaag tcccgcacag agcgcaaccc ttatcttttg ttgccagcgg 420
 tccggcggga actcaaagga gactgcagtg ataaactgga ggaagggtggg gatgacgtca 480
 agtcatcatg gccttacacc agggctcaca ctgctacaat ggcgcatcaa agagggggnc 540
 cgtcccaat 549

<210> 1718

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1718

taacgttact aacaaatcgt catctacttg taattattaa gtaatacttc ataattaagt 60
cctgaaaaca accagggcag cgggttttaa taaattgtcc tcaacatfff ttcttaaaat 120
agaggcgfff tgtatgccaa atattcatga atatgtactt atttcaagtt tcgttttttag 180
aaatactatt taggtattgt aatagcatgg actatcattc caaaatccat atctatffff 240
ataattgtfff ttgtagaatg atattaggag agacttatat gaatgattff gaacaataat 300
ggttgaaata aactattcaa tcttattact ttttacatat atgtatttat ttacatataa 360
atacatattt gatttcaatt tgattcaatt gtttggtgaa tttttgttg atagatctff 420
ttgcagtgtt ttctcgtaag ttaattcaaa tatatgcggg cataagtaat tcaatagaat 480
atffffctgt atacttctat cgtattcatt gaatatatta attgnaaagn gctatffata 540
tcggtaaaa

<210> 1719

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1719

agaacagatt ttcaaagacg ccaatgacag tattacaatt ttggctccca atgatgaagt 60
ctttgaatca ttgactgaag aagatcttaa tgtattgttg gaggataaag acgccgctag 120
tgagacattg aaaatgcatg tacttccaga gattttatgc tgcaccggaa attggccata 180
acgtatggcc attccttgaa tctgtccgat ctttgacaag gccattaaat atcaaccgtg 240
atccaaatac cgatgaagtg tatattggaa ccacaactgt cgcccaatgt gatgtaatga 300
atattaatgg agtcatacac agagtgcaca aggtaatgtt acctcaacga cctaaagtaa 360
gaatgcctff cttccgtcaa ttcattgtff actaagcact gattaagcgt gaatatatat 420
tttcatatac caaataaagc cattagtttg aattttcgat atttgtaaaa tgagatgatt 480
gaaatatttc attaggacgc taaatctaatt tgagtattgt attaattaaa aattttataat 540
taattatag

<210> 1720

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1720

ataaaaaata agagaaaatg gtcgtttgta gagttatatc attatcttgt cgccgtttac 60
atgcacctgc caaatttttg aaccactttt tgaattcaca aaatcaattg gcaaggacga 120
gtattaaata tatttctaca tcacagatta actttgcaga acgtaagtac acagataaac 180
atgaatgggt tgttgtcgaa ggcaatgtag ggactgtagg aatctcaaaa tatgctcagg 240
aagccctcgg agatgttgtt tatgccagc tccctgatgc aggtacagat ctttctcaaa 300
aggatgaatg cggagcatta gaaagtgtaa aggcagcatc agaattatat tctcctgttt 360
cgggcaaagt tactgaaaaa aactcagctg tagaaaattc accagctttg attaacacat 420
catgctatga tcaggttttg ttacaggntg gtattcaaag taaatctgag aagcctgaaa 480
ggtgaataaa ttgatgagtg agaaaagtat gagagttttg aagannacco attaaattgg 540
ncattaaan

<210> 1721

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1721

```
aaaccatacc tagtccaatt tggcatttag aaacaattgc aaaatataaa aactaaataa 60
aaaatgggtg tttacgattt gttattcagg aggacttcca catttgtagc cactattatg 120
gcctcgacgt tctttttcga aagaacgttc gaattagggt ctgaatacat gttcaacaaa 180
gttaatgaag ggaaactgtg ggcgcacatc aaacataaat atgaataaac aacaactcaa 240
attggataaa gtagagttta ttatataagc tagacaaata aattttttatt ctgttacttc 300
ccaaggcttt tctggtctgt cagcgtccca tggttgagcc ttcttgaatc ttgctgggtc 360
attgagtga acaccacctg aaaaatcaat tatgtaataa aaagtgtaaa atataatata 420
gtagtaacag aaaaaaaaaa aaaaaaaaaa aaaactcgag gggggcccg acccaattcc 480
cctataggag ccgattacaa tcaactgggc gcgtttacac gcggactgga aacctgcgt 540
accactaa                                     549
```

<210> 1722

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1722

```
atatttttag taactttaat tagtgtacag tattagcaaa caaaatatga tgaacattca 60
aaaaatcggt aggagcttaa accgagctgg agttgcaaga atgtcaactg gacagtacgg 120
tgatgggtgct ggcaaaggag gtggtgggtg tggatccatc cgtgaagcag gtggatcttt 180
cggcagaatg gaagctgcta gagaagaaga attcttttat aaacagcaac aagcccaatt 240
gaagaaactt aaggaacaag caatagatca gaaaactttc catgaggaac aattaaaact 300
tcacaaggag gctttggaga gacatgaaaa acatttggct gagcttaaga agtaaatga 360
agtttcatat atagcattat gaaaatgtta gacagtata aaaattcaaa tatttggtac 420
tatttactga attataaac ttgcattaaa gcttctataa gttattagtt ttctagcatt 480
cttaatatat tcattgcact acattagttt taaattctgg tnatnatgt atgnactaga 540
tttgnaata                                     549
```

<210> 1723

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1723

```
aatctgctta atgcgcgcaa acacctctgt cagctcgctg acattccccg ccagacgctg 60
attttccagc tcagcagctg ctttacttct gctaacataa cgggatcgc ggcgagacag 120
ggtaaactcc gccagaccaa tcggatttga acgataagaa gaggtttcac cggaaggaat 180
cagttcgtcg gtggtgggtc cttcgtcgag gatcttcgag cacactttca ggacgatatt 240
gtcagtcagc gcacccaatt ccggccagtc tttaatgttc ggcccgtaaa tcagcggttg 300
```


<400> 1726

```

aattcggcctt cctgctngac gctctgaaat acggtactcc gccgcacgca ggtctggcat 60
tcggctcttga ccgtctgacc atgctgctga ccggcaccga caatatccgt gacgttatcg 120
ccttcccga aaccacggcg gcagcgtgtc tgatgactga agcaccgagc ttgctaacc 180
cgactgcact ggctgagctg agcattcagg ttgtgaagaa ggctgagaat aactgatatg 240
actcaaatac acgaaatcat tcgcgttgca tcgaggcggc aactgagtga actcccatga 300
gcatagataa ctatgtgaat gggatgagcg aaggcagtca acgaagaggc agcgtgaagg 360
ataaagtgtg taagcgtccc gtttcgatct tagtggtcat ctacgcacaa gatacgaaac 420
gggtgctgat gttgcagcgg cgtgacgatc ccgatttctg gcanccgtaa ccggcagcgt 480
ggaaaagggg gaaaccgcgc cgcaagctgc atgcgcgaag taaaggaaga gtaccantgt 540
gttgcgctg

```

<210> 1727

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1727

```

acgagtcatt tgcttccgga tggctgacga cctacagctt ccgatgtcag ccagtcgatt 60
attcgaggtc gccgaagcc atgcggatgg tgcattggctg ttggtggtac tacttctcga 120
agttcacgga gtttttcgat acgattttct tcgttttgcg taagaaaaac aaacatgtgt 180
cgacactcca cgttattcat cacggatgta tgccaatgtc cgtctggttt ggcgtaaat 240
tcaactccagg tggtcacagc accttttttg gcttcttgaa tactttcgtc cacattatca 300
tgtattctta ctacttgctt gccgcacttg gacctcagta ccagaaatac ttgtggtgga 360
agaaatacct gactggtctt caaatggtac aattcgtcct ggttatgatc caccgcttcc 420
agctgtgtca ttgaatgtaa ttaccacagt gccttcgttg gggatcgga tgcatgcagt 480
catgttctac ttctattctc tgtttctaca aacagactta cacaagaaag aaagaagaga 540
agcgatgaa

```

<210> 1728

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1728

```

aatttctgt gaggtgatta ccctttcaag caatattcaa acgtaactat cctttaattt 60
tcggatccag cgcacgcgt aaaccatgc ccaacaaatt gaacgccagt acggtcagaa 120
aaatagccag ggccgaaaa acagcgacat ggcgcgcgat aaccatatcc gctcgagcct 180
cattgagcat tgctccccac tctggtgtcg gcggctgcgc accgaggccg agaaatgaga 240
ggctggcggc agagataatc gaggtaccaa tgcgcattgt gaaaaacacc acgatagaag 300
agacgggtcc aggcaggata tgacgcaaca aaacggctcat atcgtctggc ccaatactgc 360
gtgctgactc aataaagggt tgctgtttca acaccagcgt gttgccgcgc accaggcggc 420
aaacgcgggg cccgggtacc aattcgctt agtgagtcgt attacaatta ctgccgtcgn 480
tttacaacgc gtgactggga aaccctgcgt tcccaactta atcgcttgca nacatccct 540
ttngcagct

```

<210> 1729
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1729
 aatactctgc gcttcgtcat aggtttcaat acgcgcccgc agctgctgcg aagagagcgc 60
 cttacgcaat acgctgtcga atttcggatc gcaccagtgg gcgaggttgg tctgcgaatg 120
 aattgccgcg cagctcagta acggacggaa gaaactgtcc gggtcgttac tgtccgtcgc 180
 ccaaccggat aacgtcagat catggctcat atccatcaac cgcgcctcct gaaagcgacc 240
 ttctaccggc acaatcacca cttttacgcc aacctgcgcc atatccgcct gaatcagttc 300
 ggcagttttc agtggactgg ggttccacgc ctgcgaacgt gtggggggccc ggtacccaat 360
 tcgcctatag tgagtcgtat tacaattcac tggccgtcgt tttaaacgt cgtgactggg 420
 aaaaccctgg cgttacccaa cttaatcgct tgcagcacat ccccttttcg cagctggcgt 480
 aatagcgaag agcccgaccg atcgccttcc aacagttgcg cagctgaatg ggaatggcaa 540
 ttgtagcgt 549

<210> 1730
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1730
 gaaagggatg gcgtcttatg ccctaatatg gcctgtttcc agtattatac aacagacaat 60
 ggaaggaaaa agattagaaa attacgattg gggtcgttgt ttacgattca gtttatacgg 120
 atgcctatgt actgctccca ctctgtatgg ttgggttcga ttatcaagtt caatttgcc 180
 acacaataat tttaggacag ctgtaactaa agccctcatt gaacaagtta catatggacc 240
 attcgtcttt gccagtttct tctttggaat gagcttgatg gaaacacata gtgtggacga 300
 agcagttaaa gaagttaaag ccaaattttt gcctacttat aaagttgggt tatgcgtatg 360
 gccgtactcc aaacaatcaa tttttctcta gtaagtgaat caaacagggt accttttgca 420
 gttgtgcagt ttgatgtgga catattctt ggcatatatg aaatataaaa atgcccgatg 480
 gaatcgccag caaacacggc aacagcctct tgggaaaaca atcaacgcct ctaaccatct 540
 ttgataagt 549

<210> 1731
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1731
 aaacgcctgt aacgctggaa gccttagccg accaggtggc gatgagtcca tttcatctac 60
 atcggttgtt taaagcgact accggaatga cgcctaaagc ctggcaacag gcctggcgcg 120
 ctgcgcgttt gcgcgantcg ctggcgaaag gggagagcgt gacnacgtnt nttnttaacg 180
 ccgantnccn gcagggngca gttctnntcn aaaatnncan aannctnngc atgnnaggta 240
 nanannttcc nnnccggggg gaaaanatgg gggggngcct tcgctctgtn ngnttgngat 300

cnggctottn ccctggnggc aaaangngag cggatntttg cgntatnttg gtggcccgnc 360
 cncantcenc cttatngnga gtcatatnac aatacagngg ccgttttcna cagcgtggan 420
 agngaaaaac cgggtgtnncc cctattagcn tgtngaaant cccnttttcc gntngggata 480
 ataaaagggc cccccactgn ctttttcna attgcccccc natggggaan ggaatttga 540
 ggggtatttt 549

<210> 1732

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1732

caacgcttgt ggaantgcaa tccaccaaatt ttgaatgcc aattgctcca gttggagatc 60
 cgaacatgaa ggttgaatgg ttcctaaatg gcaagccttt acctcacaaa aatcgtttca 120
 cgccgatata tgacttttga tatgttgcta tgaatttttg ctgggtctac cccgaggata 180
 gtggagagta tttatgcaga gcaacaaatc tttatggtat ggatgaaact agagcgatta 240
 taaaaactgc tggtagacca ggaatcatat atgattcaca acttcccaaa catatgaaga 300
 gcattgaaag aattagggag atggaagcag cttggcaaat tgtgccggac gaacctgatg 360
 aagaatctaa acctaattgt cacctgtgtt tgtagcaaaa ccagaccctg ccaacggaag 420
 aaggcgaatg gctagattct gctgtagagt acaggtcatc cacgtcctan agttatgttg 480
 gtagggtaat ggtacactga gtcaacggtc aagattaaat tacatatgat ggnatgttca 540
 catggnnttn 549

<210> 1733

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1733

aagttgtcga catgcttgca ctggatgccg atgttgtatg cagatgtgcg ggtggaaata 60
 atgctgggca cactgtagtg gttgaaggca ctgaattcga tttccattta ctgccagcg 120
 ggataatcaa caaagactgt atttctatta ttgggaatgg tgttgctatt cacttgcttg 180
 ttttattgag gaattggaaa aaaatgagaa gaaaggtcta agtggttggg aatctcgtct 240
 tgtaatatca gatcgggcac atcttgtatt cgacatgcat cagcaggctc acggcatgca 300
 ggaatcagaa aaggggtgat taaccattgg cacaacaaa aaaggcattg gtccgacata 360
 ctcttctaag gcaaccogta atggattgag agtgggtgat ttattgggag attatgattt 420
 gttcagccga aaatttaggc agtggctgct ttgtccaaaa atgtttcaag tcttgaattg 480
 ccgtggaagg gaattgaaag natcgcnatt tgcagcaatt ggcaccnttg taaggatctn 540
 atcgatttn 549

<210> 1734

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1734

```
atgatatttc acaagcttta attccatatt ggagaaaaga ctgcatgaga aatgaactga 60
aatcccttaa gaaaacatta gatgacaaag atagaatggc aaaagctgct gttatgaatg 120
acattgttga gaaggtaaaa gaattgtgcc tttcaagtga atcagatgta tttgttaaac 180
aactgcaagc agattcaaac actaaagcct tagatgctgc tttaaaacaa ataaaattat 240
tgaaaccaga tgcatcagcc atgtttttct ctgttgacca agacagtggg aaaatattct 300
gtttagcttc tgcttccaaa caagcaattc aaaaaggatt aaaagcaa atgaatgggtta 360
atcatataac aaaaatcata aatggtaaag gtgggtggtaa acctgaatca gcacaagcat 420
tggtagcaat atcgcaaaaa ttgatgagtg ttaatagctg caaaagaatt tgcagatttg 480
aaatactgna aaatgnntttt acttctgcat tgttgaaaca ttactatat cttagcattt 540
atccgtatt
```

<210> 1735

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1735

```
gcaacaacaa cctcagaatt tacatcacca caatactagt cagcaacatc accatcaaca 60
acacagtagt aacaacaata tatccagtgc tggcaacatg aatccgcaac atgtgaatag 120
tcattcttct caccacagtc cattatcttc atccatgagc catcatcata caatgcacac 180
accttgcgtg atcaattcgg ggtatcagca tgtgaaaaat gaacctagtg aatacgatta 240
catgaataat tgtcttcctg gaagttatct cacaggaacc agtttttggt ctccctgag 300
tcattcacag agcagtgtctg tagattccct gagtgggtac catcatcaac acaatgttat 360
ccaagccgct aaattgatgg caacttcttg aaattttggt ttgaaataag taaaaatact 420
aaagactaat aaaaaatgta aatgatatag aagtcaacat atttgactat caaaatataa 480
tgcaaaaaaa tgttgtgtga caacattgga tggcaagtag caaggcaata tcaagcataa 540
ttacataat
```

<210> 1736

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1736

```
atngaattgat ggcagttact gatcctgcat tatgtagaag agttgcttta agacatacct 60
gttttttagc agctttgtca ttatcagctc cttttctaga tgttactaat tattggtttg 120
ctgctgaaac gttaccattg aacggatact ttatgtactt agcttggaat ttttataaag 180
aatcgagacag taaaagtctt agaaaactat ttagattttc actaattcat ttacctgcat 240
tgatgttatt atttttatta aataaaaagg aatggttttt tacgaaagac tcaacattgg 300
aaacaccttt ggatatcgat gaacacaata aaactcaaac aataagcaat aaacctgcaa 360
aacaacacagt tgttgtacct tcagctatct tagataaaat gtaaataata tataacaaaa 420
aatgttttag taaaaaatag aacaattaaa gatattatga gaacaaaaaa aaaaaaaaaa 480
aacctcgngg gggggccgga cccaatcgcc tataggagcg atacattcct ggncgngttt 540
acaccgagg
```

<210> 1737
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1737
 aaattttctt ttaataagaa aaattttatta ttaagtttat taattttaga atataaagct 60
 ttaattatat ttttaatttt atatttttgt ttttaattata taatatttga gaattatttt 120
 tgtaattttt atattgtatt tacagtatgt gaagggggtt taggccttct tatttttagtt 180
 gcaataattc cgtactcatg gtaatgatta ttttaaaaga tttaatataa tacaatgtta 240
 aaatttttaa taataatatt ttttataatc cctattattt tattaataaaa ttgttattga 300
 ttgggtcaaa caatattatt tataatatta tttatttata taattttagg aataaaaaga 360
 attataattg ttaatattag attaaatttt gggtatgata ttatatctta tagattgaat 420
 ttattaagga tttgaattat tatttttaata ttaatagcat caattttaat ttataaaaat 480
 aattataatt taaattattt ttattattat taatttttta ttattaatat tatttttacc 540
 tttagtcac 549

<210> 1738
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1738
 aatgctacac tggctaccac taaccctatg tatgtccaga tgcgaagagg gaatgtggaa 60
 aagcttgtaa taccctcaag tgctaaattc caaagtttcc atccattaaa ttttgtatct 120
 ccagcaattc tttccgctcg cacgtattca acaatatctg ttttctctcc taccagctc 180
 agaatacctt tcatgaaaag gtttcgttct ggcataagtt taatattttc gacaacatca 240
 cggctcatca gcctgaaatc accaaccattc tcttcaattt taggattgct tattttattg 300
 tggagcttat agaaccactc agcggttttt cgcttcaggc gtccatcagt tgagcgggtca 360
 gatcttttag caagaaccat atcagcacct gcttgccatt tttcaataag atgaggaata 420
 acctcaatcg ggtcttgag gtcaacatca attgggatta tgcgatcccg gtacccaatt 480
 cgcccttagg agtcgtatta caattcactg ccgcgtttac aacgcgtgac tggaaaaccc 540
 tgcgtaccc 549

<210> 1739
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1739
 gccagacgga gggctaacac tgcctttaac ttttcattac tccagataac tttcaaaatc 60
 aactgcaatc atgtccgacg aggaagaggt ctacagtga gaagaggagg aggaggagga 120
 ggctgtggag caaaaacaca cgaccaaagt agaaggcgat gcagctgctg gagaccaga 180
 attcatcaag cgtcaagacc aaaagagatc agatctcgat gatcaactca aggaatacat 240
 cttggaatgg cgcaaacagc gtgccaagga agaagaagat cttaaacgcc ttaaggaaaa 300

gcaagctaag cgcaaggtat cccgcgctga agaagaaaag cgtatggccc aaaggaaaaa 360
ggaagaagaa gaacgcagaa taagagaaat tgaagaaaag aaacaaagag acattgaaga 420
aaagcgtcaa cgtctcgaag aagccgaaaa gaacgccagg ctatgcttca agccccaagg 480
atgccacaag aaggggccac ttccctccca aaagacagac ttcactgttt ctgccaattg 540
aagaacaag 549

<210> 1740

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1740

aaggaaaagc tgtttttgaa ggtgaagcaa cttcagaaga ggctcttaag aaattcggtc 60
aatcacaatc gttgccctt atggtagaat tcaaccacga gactgcacaa aagatctttg 120
gtggagatat taagagccat ttattattgt tcctgtcaaa ggaagggtggg ctttttgaca 180
gctatgttga gggagcgcgg gaggttgcaa aagaattccg cgatcaagta ctgtttgta 240
caatcaacgc tgatgaagaa gatcaccaaa gaattttgga attctttggc atgaagaaag 300
aggaggtgcc tgctatgaga ttaatcaagt tggaagagga tatggcaaaa tacaaccag 360
ctacaccaga cttttcagca gaaaatatta aagaattcgt aggaagcttt attgaaggca 420
aattgaagca acatttatta tctcaagatc ttccagaaga ttgggataag aatccagtta 480
ggtttagtca gctccatttg atgaagtaca ttcaattcag aaaaggtggt ttgnngaatc 540
tatgctcca 549

<210> 1741

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1741

aattgtccat caaacacgta atacgttttc aactaaagaa cactggctgt ggtgttattg 60
ggttattttt ctcggtcaa tcacggtact gcaggggata tacgtcttag tcagttccga 120
tgcaagcgcc cgactggctc ccggcattat tcttatttgc ctcggaatga tctgttacag 180
catattctca aaagtctggc tactggcaact ggtatggaga cgtacctgtt cgtagccaa 240
cagaataccg atgattcccg tcttcacctg cctgttttgc cttttcctgg catcgtttct 300
tgcggaatg gcgcagaccg acatgggata ttttattcct tcgcgagttc tggtcggttt 360
gggagcggta tgctttacgt tgttctcaat cgtttcaata ttagaagcgg gttctgctaa 420
aaaataattg caacgtaccg gataaaacca gcgttgacca tttgcgtaac gctggttttt 480
cttaggcac atgaaataac gcacattaat gcatagtggg aagtataaaa aacagcaagt 540
actgtttt 549

<210> 1742

<211> 233

<212> DNA

<213> Ctenocephalides felis

<400> 1742

tcacggtttt agaaatggaa gtaggatcaa tatcgatatg cagaacagtg gcatttgggc 60
 agtactttgc cagattgttc gtcgttcggt catcaaatcg taccgagacg gcgaaaatca 120
 catccgcgtt atgcatcgtc atattggctt cgtaggtacc gtgcattcat caccatttgc 180
 tgcacccgca gagcgctaag gcgcagttca ttcattctggt taacatactc aag 233

<210> 1743

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1743

aagtcgctga acataccaac ctcgaaacgc actttatcga ttccagcggg ttaatctcct 60
 gggacctgtt caagcaggat gccgattatc cgtttgtgga ctggaatttc tccggcacca 120
 cggaagaaga gttcgccaca ctgatggcta tcagaaaaag gccatctctc agcgcctctg 180
 aacaagggtca ccaatgctga gatagctgaa gagatggcgg ccogttttgc ccgttgctgc 240
 tgtgcgaatt tatccgcagt gtgaacaccg ttggcaaata ggcattcgtg gaggcgcgtc 300
 gtcgggagag cgatgatgag gaaggttacc tggatttttt caaaggcaag ataaccgaat 360
 ccgttgaatt acatcacacc ccgcgagagt cgaatcaacc aattttgttt tttttacatt 420
 ttatacaaaa ttataacta agtatataag tgttgatatt gggttgaata ttaaattgcag 480
 tatacctttt tattaggaaa ctacaaacat tcttgttata gataaaatat aatttaaata 540
 tntgttgaa 549

<210> 1744

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1744

aacacgctgg ctgacaaccg cacgggcagt cagagcaccg ttgctgttga agacttcaat 60
 ccagtcgtta tcggcgatac ccagatcttt ggcacggtt tcaactcaacc agaccaccgg 120
 accaccgcca cctaaagtca gcatcagcag gttgtcgtg taggtggagt ggatacccca 180
 cttctggtgc ggcgtcagga agttgagcgc ttttctctgg ttgccgttgg atttctggcc 240
 tatcacttct ttcaccgaac ggggtgtgat cggcgagcga taaaccagca ggctttcacc 300
 gaaatcacgc atccactggt gatcctgata cagttgctga cgaccagaga gcgtacgcca 360
 tgggatcagc tcgtgaacgt tgggtgaacc ggcgttgtaa gaaacgtgtt catcttcaga 420
 ccagaccagg tcgggctgga gataattttg cgcggctgtg cctgaatatc gcggaacgga 480
 tcttctcgtc ttnttattca gcgccagatg cgtatggcac gaccgnaat tcgttnaggc 540
 agccaagct 549

<210> 1745

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1745

```
ccgcgggtggc ggccgctcta gaactagtgg atcccccggg ctggtacttt gccaaactatg 60
accgcggtat gaagagatcg cgcataaagc cgagcttttt cgccaacaaa cggggaattgc 120
accgttttatt gtgggttttac ccgacattaa taatgaagcc agtctcagac aaaatggtaa 180
agcgatgctg gcgcgatgct catcttcatt gagtgatgta aaaggaagtg ttctgttact 240
atttactacc cgccaaccac ggttaattat gatcaccaac ggccagggtg aaagtgggtct 300
ggacgataaa catctcggcc ttctgataga aaatcacacg ctgggttatt taaatgcaga 360
tctctgggtat caggggaatca ataatgcatt ggctgttcta caagcacaga tattaaaaca 420
atcgacgcgc cactaacgta ttatccgcat ccaggcgcg gctgcacgac ttgttcagcg 480
gcatggtgcc gtattttatcc agcgccagcg agaaacctgc tccgtaccgc ngtgccggaa 540
gccagatgc 549
```

<210> 1746

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1746

```
aatttctatc gttatacgaa aagataatca attccgctag ccttaacgcg tgaattattg 60
tcttatcaca acttatcggc aggcgctttc ccgcctttcg ggtcaaggcc cgcactactc 120
ctcaagaata gtttttatcg cttccccgcg cattgcagct gttgcacaga gttgttctat 180
agagtgcgcc tctcgtgcct tcgcagaaag ccagacatc acggtactca taaaatcagt 240
cacacattgt gcgcgttggt gatgcgcgct ggcgatgtag tcataaatgg tcgtttctgc 300
ggcgtgataa tattgaacgg caatatcagc cgcttggtga tcatgactat gaataccttc 360
aagaaccata cagccagcgc agccgcggtt ttggctatat ctgcgcgccg cttcttttaa 420
tacctcaacc aggcaactgc ctaccggacg atcatcagca agaatatcgg caagcggaat 480
agcttccgta ccgcgtattc attgagtcac ggtaataaac cagcttactg caaaaccggt 540
agaggtcgg 549
```

<210> 1747

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1747

```
gaaataatga gagtatttta atatcatcac aattacaaat acgtttggca aaatgattaa 60
taggtttaaa tatatttatt ctaatacaaa taagttaata aaaaatacaa gttttcaaca 120
aacaaaacga agttatacga tgcgaagagg tgcatacgat ggogaaggta aaactgtttt 180
gcgtttatta aatcaagatg ccgaaatggg cctgatgatt aattcatata gtcaagttgg 240
tttttccctg aacaatggtg tttcagtaat gggtcctgta gcgatatttc ccaggactgt 300
tctatcatgg aatgtaggaa atagtgaaga cataaatgag gcttcattat ctttatttta 360
taccttagat ccaaaattgg atgttcttgt tattgggtata gaacaagaaa gtgttaatcc 420
caagttaagg cagaggatta tggaaathtt acgccaaaaa gaattaatgn tgaagtttta 480
cctactgtgt tgcattgcact acattaaatt tcttatgcaa aagcccagcg tgctgggcat 540
attcccctt 549
```

<210> 1748
 <211> 137
 <212> DNA
 <213> Ctenocephalides felis

<400> 1748
 accaaccatg acgacacnCG atgcatcctt tcttctcctg atcgaaggca tcgaaggcat 60
 tcttgagtag tttgatttga tccttgtcga gctcctccat tggtactgta gatcacagac 120
 gacgctttcg tncctac 137

<210> 1749
 <211> 193
 <212> DNA
 <213> Ctenocephalides felis

<400> 1749
 actgatttta tacgaaattt atagattaaa atcaacgtgt attaatTTTC tgtcaattat 60
 tgatcaatac ataattattat aaaattgttg taaatcatta tggtacataa tatatatataa 120
 gtcttgtttt aacttattta taataattat aataaaaaaca taaacatcaa aaaaaaaaaa 180
 aaaaaaaaaa aaa 193

<210> 1750
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1750
 accaagtgtg gccaaagaca atctttattg aaatggtaac aatcataggc gcacaaaaaa 60
 tccaactnca gataattatc taattatttc ttactagggg gtttgaattc aaattttacgt 120
 gatttaagtg ctgtccattt gtgtcttttc agataaaagg ccaatgcaaa aagcattgaa 180
 aagattccaa tagccttaat ggtcattttc ttacgatcat catgttcagg ctcatatgcc 240
 catttcaaga atgtagaaac atctttggcg agttgactgg cagtggctgg cgttccatct 300
 gaatattcca taacctcatt atacaatgct tgagccatag aaatggctcc ccctgggaaa 360
 tatggattgt aatactgcct tcccttagaa ttacacctgc tgggtgggtct gtgtatccag 420
 tcaggagtgc aaacaagtag tcttctcctc catgacgagc caatgtaata aaactcaaat 480
 cangtggaag agcccattat 500

<210> 1751
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1751
 acatataagc gaattttttt atatatatct tcaaaaagaa aatatccata tttttgaaac 60

```

aatttaataa atttctgttc cttaaatatt tttatcaatt catatgactt agttatacaa 120
aataatcata tgttacttat aaacatgtat catagaagtt ttacatctga ctctgattgt 180
tataattaat aaaataaaaa aaaaaaaaac atacatacag aagttttaca ttttattaca 240
aaattaaata cataaatgta tataactttt caaaatttta ttataaattc atagatgttt 300
ttcatgttta attatgtgtt tctaaccaat cggttttaat aaaaattata agaatgtaga 360
tattgtagta aatcgaacat ttctgttctt catctacaag atacaataaa tagaaattat 420
aaatagttat ataataattt tgcattttta atgaaaatca cactgtgtat catagtagca 480
cttccaattt tgcaacaata                                     500

```

<210> 1752

<211> 252

<212> DNA

<213> *Ctenocephalides felis*

<400> 1752

```

acttgaacaa ttcatgatac ttctagttaa aattttactg ttagctgcta ttatatcttt 60
cgttctcgcc ctttttgaag agcacgaaga ttctttcact gccttcgttg aacctttcgt 120
cattttactg attttaatcg ctaacgctat tgcgggtgtt tggcaggaaa gaaacgctga 180
atcggtcatt gaagctctta aggaatatga accagaaatg ggaaaagtcg tccgtggcga 240
taaggccggt gt                                     252

```

<210> 1753

<211> 265

<212> DNA

<213> *Ctenocephalides felis*

<400> 1753

```

cttcttataa ccatgtaatt ntctacacat aatgattatn ttattttattc acgatataca 60
acanntgctt ttttcttgag tggtacogtc tgctttttct atctcgacta acaaagcatg 120
gaatatttca gctactgact cattttgttt ggcagatgtt tctaaaaatg cggctttcca 180
actatcagct aatcgtttac ctctatctgc acttatcatt cgntccatat gtaaatacgt 240
ttgtttacct actaacacta caggt                                     265

```

<210> 1754

<211> 305

<212> DNA

<213> *Ctenocephalides felis*

<400> 1754

```

actacatcaa aatgtgtgct tttcctaagc agctgcaata cccaaagcag caccagctgc 60
aaatgctcct ataaaaatat gtatttcttg caattttaat ttttcttcac ctgtaagacc 120
gtgataccat tttttggctt ttctttgatt tttcttttagc aattcctctg ctttgtcaat 180
tttcctatca acaaatctct caattttatc cattaatttg ggagtttctc cagtaacagc 240
ctcttcaatt ttatctgtca ccttatcagc ctttttagtt actttatccc agtcaataga 300
aatgt                                     305

```

<210> 1755
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1755
 accattatat aagtcaggaa atcgtcaatc aacagcaaac tacagaccca tagccatact 60
 gccaatatatt tcaataatta tagaaatggt gtttagcatta agaattacaa gtttcttcga 120
 tgctaataat tattttgtaa aaaatcaatt tgaattcaaa aagaaaatta tcacaattga 180
 tgctgtgcta gactttttga actttatata aaattcactg gaagatcata aacactgtgg 240
 ggcactatatt tgcgatctca gcaaagcatt cgatttgtgt ccacatgaca tattttctcag 300
 gaaactggaa tattatggat ttagggggcgt agcccttaaa ctgatgcaat catacctatg 360
 taacaggtat caagtttgtg gaatggaaca ataaacgaag tgagatagca agattaaatg 420
 caggcaatgc ccaagggagt attcttggac cacttctttt tatcatattt gtgatgatct 480
 accaccgaac attagctgca 500

<210> 1756
 <211> 486
 <212> DNA
 <213> Ctenocephalides felis

<400> 1756
 acggtctatt aacaaatatt ctgaaatcaa aatcaaacta atagcggcaa gatctcgagt 60
 agcaccatta aaaaatatta cgctcccccg tctcgaactt tgtgcggcac aattgctagc 120
 aaatcttgcg caaataacta aacgtgcatt aaatatcgcg tttgataaag aattctattg 180
 gagcgattcc acaatcactc tttcgtggat aagatctcca tcttataaat ggaaaacctt 240
 cgttgccaat agagtttctg atattcaaac aaaaaccgac gcaaataact ggttacatgt 300
 ccgatcgga gacaatccag cggacctcat atcacgcggg tgctatacac atgatttatt 360
 gaattcatoc ttgtggtggg caggcccatc ttggctacaa aatccaactg aaacacagcg 420
 acgtgcaact gacaatattt caattcctga aactgatgtc gaaagtcgaa tcacaagttt 480
 gacttg 486

<210> 1757
 <211> 500
 <212> DNA
 <213> Ctenocephalides felis

<400> 1757
 accactgact cctgaatggt aaaaattaag tcgtttattg atttatcgat atcttcttca 60
 tttttcaatc gcatttcaag atttgttcgt tcathtagtg tgttgcgaaa ttttttccca 120
 atttgtgaat ttattataaa gtattctggt gttttttata ggaattgggt caattcctat 180
 tgntagaatg attggagaat ggtcggatga taaatcaaaa gatggtttta tttcaatggt 240
 cttatcatca atatcctttg taatgaagaa attgagcaga tccggtattt tattagtatc 300
 gctcggccag tatgttgggc ttccagttga tatgtaagag agattgtttt tatctattgc 360

atttaataat tccttgccctc tagatgtaat taatcgagaa ccccatcttg tatgtttgca 420
attgtaatct cctcctacaa taaattttgg gcctagttgt gaaagaaaat tttcgaaatc 480
aatctgttaa tttatgtcgt 500

<210> 1758
<211> 270
<212> DNA
<213> Ctenocephalides felis

<400> 1758
acatgaactt aatcctgatt ttaaaccacc aaaaagacca tttaaaagga tggattatgg 60
tgctgccata aaatacttga gagaaaataa taccactaaa gatgatggaa cattttatga 120
atttgagag gacataaccag aagctccaga gcgcagaatg acggatgcaa tcaatgaacc 180
tataatgctt tgctgttttc cagcaggaat taaatcattc tatatgtcca aatgccctga 240
gaacaaagaa cttactgaaa gtgttgatgt 270

<210> 1759
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 1759
acatttttac atttttaaat ataatacaac cttatataag tatcacacca tcttgtatct 60
atgaaaatag tctcgcaaac tcttcgaagt tgatgcgtcc atccttgtcc gtatcggcca 120
acgtcatcaa ctcggtgacc tgctgctccg tgacattttc gcgatcctc tccatggcgg 180
ttcgcaattc gtctcgggaa atgtatccat taccatctcg gtccaacacc ttgaaggcag 240
atcgtagatc tttattgaca tcatcgttgg agtctgaatc tcccccttgt ctttgggttc 300
cgcccttgcac tgccctgaact gcttgaatct ttgcgatcca ttgtaaaaac tcgggtctcgt 360
ctattaatcc gctaccagac tgactagcgt ctttcatcag atcttgaata agttcatccc 420
tcacgtggat tcctagattt tttaacataa attgcaaccc tgaagccgta catgtccatc 480
ctggtgcgat ccagcaaccc 500

<210> 1760
<211> 500
<212> DNA
<213> Ctenocephalides felis

<400> 1760
accaccgtct ggaccgctag gatccttgat ttctagggtg agttcaaata cttcttcttc 60
tacatctacc gttcgtatct taattttact cgattcttta acgactgtgg ttccgcgata 120
ccaaacgaca tcaggcttgg gcttagcttt acatttacat ttcattgtta ttaacgagcc 180
tgtttcatta ggaataattc ttggtttttc gatgaacgtt ggccgcgtatc ctgcagcatc 240
atcacgcgtg tcgaagtcca agctgatagt cgcattgctt tctccaagtt cattctttgc 300
agtcacacga tatttgccag catcctcaac agtgacattt ttaatctcga gtgaagcaaa 360
gtatgaatga ccatctttgt caaccatcaa cttgtgtctt ggtgagtcct taacagggtt 420

ggattgtga aaccaagcga ctgtagggtt aggatcagct tgaattcggc attcaaagag 480
 caaacgtttg catcatctct 500

<210> 1761

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1761

acctaacgat caattcatta cagattactt gaatgacggt aatttcatag actagcccat 60
 tccaaaaatt aagtattctg aagtgctcta cgagattagt aacactaaat tggtaaaaac 120
 acttggtaat gatgcgatca catttggtact aataaaacac ctccctgata aaggtaagag 180
 atttttaacg atattattga atgccataat acggctgaag cttttttctt catcgtggaa 240
 attggcaaaa ataatcttaa ttctcaagcc tggaaaaaat cctactgatg cagtttccta 300
 ccggcccat agtcttctat ctgcctctc acattttttt gaaaaagtta ttcacaaaag 360
 aatcattaat attttagaag ataataattt tatgccaaaa catcaatttg ggttcantta 420
 gacaacactg agcaaaagaa caaatacaca gagtagtgga ttcatttata aagcctttca 480
 cttaaaaaaa atggtcagcc 500

<210> 1762

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1762

acgggttgat cttagcagcc tcagcatatc cttttttcca catcctgttt ttagcttcaa 60
 aataagatat gttatgtagt gccatcattt cttttatttc tttatttgct ttgaagaatt 120
 tacattcttt gtcgtttgct tgatggtttc catggcatac tgcacatata aagtctgaca 180
 cgatatggca attttcatga gagtggttct ctgaacaata tcggcatctt atcttgcttt 240
 tgcattagtt ttttatatgt ccataacgcc agcatttggt gcattgcatt acagattgaa 300
 tgtaaggacc tacagcacac ctaaccgaat acattgaaac gtattctggc agatagttaac 360
 ccctgaacac tatttttacc atttgcgatt tcatatttgt ttattctaag ttttttaaat 420
 gcatttgacc tctaataatt tgatatccga tctaataaca tccatgattt cttgctcgtc 480
 atgtcgggtt caacgttaaa 500

<210> 1763

<211> 500

<212> DNA

<213> Ctenocephalides felis

<400> 1763

acctgggcaa aggtggagaa gttgccaaat taaccaaaga agcaatgaaa ggcagcatgt 60
 ccttccaaga agctctcaca aaacgattag atataatcag accttcacaa cagaatatatt 120
 cagacttcat caaagatcat ccatcaacac tcacacctgg aataaaaaac ttaattgcat 180
 ccttacatcg gaaaagaata ccagtatatt tgggtgagtgg aggcttccga tcaactcatag 240

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1772
 taagaaagtt gctgaagaat ttaaagaagt tttagacacc ttattgngga atgatgaata 60
 tgggtgtttgg atggactacg attcagaaaa tagaatatcg agaccttatt tctacccttc 120
 gaatcttgct cctttgtgga ctcaaagtta taaggacggt gagtgtggga gtggtaaaag 180
 tttgggagta gacaagaatg tgcaggatag gattgagagg gttttgcggt atttaaatag 240
 tccagatgta gcaataaaaa gctacccagg tgggtgtacca accactttat tgaatacagg 300
 agagcaatgg gacttcccaa atgcctgggc acctcttcag catatggtga tcctgggatt 360
 ggacagcaca gataatcagg aagctaagga tttgtcattt gatctttgcc agaaatgggt 420
 ccgatcaaat cataaagctt acttggaac gaatcatatg tatgaaaagt taatgcacac 480
 atgctggggc accangaaat ggcgagagaat tgaggccact tggtttggtg gcgaatggtg 540
 ctattagac 549

<210> 1773
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1773
 gccgtattcg cagacttata aattagtcgt cgtgggcgga ggaggcgctg gaaaatctgc 60
 aataactatt cagttttatac aaagttattt tgtgacagat tatgatccca ccattgaaga 120
 ttcatacaca aagcaatgtg tcatagacga catcccagct aaattggaca tcctggatac 180
 tgccggtcaa gaagaattca gtgcaatgag agagcaatac atgagaagtg gtgaaggatt 240
 tttgctcgtg tacgcagtga cggatagggc tagtttcgac gagatgtaca aatttcacag 300
 acaaatctta cgtgtcaaag acagagacga atttccaatg ctgatggtcg gcaacaaagc 360
 agatctcgag acgtctcgcg tgggtgtctgt tgaagaggcg caaaatttgt caagacaatt 420
 aaaaatacct tacatcgaat gtagcgctaa attgagaatg aatgttgacc aatccttct 480
 gactagttag aattgcagaa gatttcaatt atcagaaagg cagatccaat taaatcaatt 540
 ataggataa 549

<210> 1774
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1774
 aattattgcc ggatgtctgc tggatgatgct gccagcgatg ggctgttct atgtatccga 60
 cctgatgggc ggtgcgaaaa acctgctgat cggtaacgct atcaagggtcc agttccttaa 120
 tattcgtgac tggccgtttg gtgcagctac cagcattacg ctgactatog taatgggcct 180
 gatgttgctg gttactggcg cgcttctcgt ttgctgaata agaagggtgga actcgaatga 240
 tcggctgact gcttcgcggc ggttttatga ccgctatcta cgcgtacctg tatatccacc 300
 atcagttcaa gacgacgcag cacctccggc cgggcatcat cctccgtcat ggcacagaga 360
 aaatcattca gcgtccccgg ttgtgaatct tcatacacgg tgatgggtccc ggcgtgcgat 420

ggtggaaaac cgtcaacctg caggatgaca ctgtctgacc gtactccaca tcatgctgta 480
 acgcccggct tatccggatc ttgaccacag tgttcaccac caccgtggtg ctgtacgtct 540
 ggtttactg 549

<210> 1775

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1775

gaaacgagtc gcatagtgc cttctgaatg tgacataatc ccaaagtcta aataacaaaa 60
 atactattta gatggagagt gctatccctg acgtatacgt gaattgatac gtgcaccttt 120
 tactatcaag gtgatacact cgtgcatcaa gtgataaaga gtgcctgcaa tttattttta 180
 ttttagtttg tccgtgaatt gtgtttttcg ttgtgtaacc caagcgccaa agtaacgcgc 240
 aaacagacat ggaggaaata ttacaagaaa ttaggactat aaaattcaca cgggaggaag 300
 tggaatcggt gatttactgg cgttgtccgc gtaagtctgg catcgtattc ggcggtgcc 360
 tcgccctgct gctggcggtta tcatgcttct ccctaatacag cgtgttagcg tacgcttccc 420
 tcacagccgt ctgcggctgc atggccttcg tatctatcgc aacgtattgc aagctgtcag 480
 aagacgtccg atggcatcct ttaaggagct gtggaaacag atgtcagtggt gtctaagaaa 540
 acccacagn 549

<210> 1776

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1776

gctgatggtt gcggatccgc tgagagcgga tatagtgaag aacgcagtga tgaaagcgat 60
 tgcgagacta aaaatttagc taatgattgt actgataatt tagataatga tgttgaacat 120
 gtaggtagtt cgaatgatat tgtagaagaa gatgagcacg tactgagtca caataatgat 180
 gtagtagaag acgaaattgt gaatgtaata aattcgattg aaatagaaga actctctggt 240
 aatgacatta atgaaataga cggcggtgaa gtagaagacg agactgatat tcatattaac 300
 aaagaaaaca gttgtaaatc tgattttaac acaacgcaaa ttggagatgg ctcaaataat 360
 gtgacagtcg ttgcaatcca gataaagaag gagcagatag cacacttgaa cttgaagcgc 420
 aatcgtgttc aagttctgga tcttttaata aaatctctaa tattgtaatg atgaaaaatc 480
 tcagaattta gacaaattga cacatgcaaa gacgataagt tgtgcgtgtc agacctctca 540
 tcgcgagtt 549

<210> 1777

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1777

aacgaagaaa aacaagatta aaattcaaca cggatcagct gtgtattgta ttatatattt 60

ggataacaaa gtatttgtat cgtttgcaaa tggcgatatt agtggtttaca caagagatca 120
 aacgggttgg aatacaaacg acccaacgac ggtgtgctgt ggttcaaagtg tggccgccc 180
 tactaagttg cttcccgtcg ctagtcgatt gtggtgttcg ggcataatc atatcaaaat 240
 tatcaataca gaatcattac aagttgaaca aacgtttcaa gtcaacaccg atatcaataa 300
 gccaataaca aatatggtta ctggaaattc ggggggttgg atatcgttgc aaaattccgc 360
 agttttaaaa tgttatcatg caaatactta cgaatgtgtc tggaagtaaa tattgctccg 420
 agtggttaca agatgttagc ggcttgcatg gatattattc gacaacataa agcagcgtgt 480
 ttaagagtgc agcctgtagc ttgcaagat tatatggata ggaacagtgc tggagtatat 540
 tgcctccat 549

<210> 1778

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1778

atacgtgata aggatgacta cccatatata acattttgcc atgttattat atattttttc 60
 atgctagctt catagaaatt tttcaaaatt aacattaaaa cattgttcat acatttcgtt 120
 taataatttt tatgttttaa actcattggt caccttaata aatgtacata acttattatt 180
 tctttgcaaa tccagaatta ggacattttt ttcaagtatg tattatggct ctcaaaattt 240
 agtttattct tatatcgggt tttattttcc tggacgggtt tcaaccgcaa tcacagatat 300
 gatggacgtg gagccctagc ggatctccaa gcccatgaag ctatatcaca ttgggactac 360
 aatgaaggac ttagtgatga agaaagaaga gcagaacagc tttgcgatga agagaggtca 420
 gagcgttgta tgagcggcgg aagaagaaga aatatataaa gaagaggtaa tgaagagggc 480
 acaacaacag atcatgtgaa agtnatggca agtgcattca attatcagat gttggtggtg 540
 ggatgatga 549

<210> 1779

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1779

aattttattta atgatgagct ttttactcag taatataaaa tattgaattg ttattttttgt 60
 gtgttggtta agataaaaag ccgtatttat tattacggct ttaattaata aaaggcaggc 120
 tgtattaaaa ttaattattca aagcataaac cgatagccaa taccggtttc agtaatgaaa 180
 tggcgtgggc ggccgggatcc tgttccagtt tttgtcgagc atgtcccata taaatacgca 240
 aatagtgact gtgttcgacc gcgtttggcc cccacacctg gtttaaggagc tggcgctggg 300
 tgagtacttt tccggcattg ttgagcagca ccgccagcag gcggaactca attggtgtga 360
 gatgcacctc ttcctcaccg cggatgaatca cgcgggcggc taaatcgacg gtaacatcgg 420
 aaaattttac cagcggatcg ggccggtggt tggagagtgg cggcgtaatg cgaactgctgt 480
 acttcggcgt gcacaacatt gccatgctgg cgtattatcg cgtatgggat gctgcgtgat 540
 ggtgaggtg 549

<210> 1780

<211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1780
 ggtacacaat gtacggtccc gatttatcca ttgattctgc aatatattca aatcttgaaa 60
 gtgacgaact aaaagaaatt attcaggatg atgacaaatt tgaagaaata ttcaagggaat 120
 tggcccaggt taaaaactgg gaaaatcaaa aggaagcaat gatagaaaga aataangctc 180
 ttgccgaagc aaatctttta cgcaatcctg acttagctga aataaaagaa aaattacaag 240
 aactttctga agaaggcaaa caattatgta ccagtatcca agaaatgctt gctgaaataa 300
 aagaaaaatc tggaagtatc agtttgata cagcttttagc tctgttaca acagcagctg 360
 caacaagcga agaagaatct gaaaatatag cagatcaatt catttcacgt gatattgata 420
 tagatgcatt tttagaacag tttgcatcat caagaaaagt tatgcatttg agaaaagtca 480
 aagctgataa aatgaaagac ttcttnccaa agaaatagta gtatcaaata atcttatgtg 540
 cctagtgtg 549

<210> 1781
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1781
 gatagttcat gctcgccggt ccgtgaaact accaaaaaca aaaaaaaaga ataataaaaa 60
 aaaatcgtct caattgaatt taatcggacc gtactaaaaa aaaagaaact tattactgtt 120
 attgttgcga taatttcgaa ccgaagaaaa ttaaattaaa tccaaaccta ttgtgtaatg 180
 gcggttttga gatcgctcat tcagtgtaat aatttactaa gaaagtccg cataatacca 240
 aacagtttgc aatcgttgtc gacaccgtgt gcgtctcata tacatggaat aaatacagat 300
 tcttcaaaaa gtcaacatgt tgcaagccca gctcaagccc atgtacagaa agaccctttg 360
 gacatatcat tcaacgatca cgttgcagcc ttcaaaagta aaaagacaag tgagctcggt 420
 cgggcttcat cgtctatgca ctatgcaoct cagaatatct tgtggaaaat aatatgaagc 480
 taatgaaaat atccaaggcg atcttaggcg agaagctgtc acagccta at gaagcttcgt 540
 ctatggct 549

<210> 1782
 <211> 326
 <212> DNA
 <213> Ctenocephalides felis

<400> 1782
 aattgctcac cgtgtaaact ttccagcacc gtcagggtga tgcgcgagcg acgttccgct 60
 acttctctgc gcagaccatc aagccctttt tccagcagca gcgggaaatt caccgccagg 120
 tgcgcacatgc cggaggtcat attgccttcc gctttaatga ttccggtcgc cagcagacct 180
 ttttgctcat cggtaaactat gccgtagcag cgatcctgtn cggctctgacc gcgccaccac 240
 gggcacactt catgcagaac gcgtttgttc tcttcgctca ccgcaaagcc agcaccggga 300
 cgatctgccat gatcatcaat ctcttt 326

ccggtccca

549

<210> 1786

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1786

cgtttacgtg gtggctctaa tcaggctttt gttctaaaat tttgctcagc tatatttctt 60
ttattggatt catittggcct gcaacttatt tagttttcaa agtatagtgg caggatagaa 120
cgtaatcata gaattttatga aatttttcat acttcttggg caaatctgtg gtgatgtgtt 180
aaatattttc aatacggatt agtgatatctg aaaatatata tttggcaaatt ttgttattaa 240
atatttagtt atcgcagacg cacagtaata cgaagtagta tttaatgaat actcgggtact 300
cttatcacag gatgctattg tatgaaatgg ggtttttagag tagtcacctc cgtctcgcat 360
cagaatgctc actaggactg tctacaaaga ttctggttta taatgatctc acttggttaa 420
tcacacgtta attaccact attggtgaat atatatatat atatatatat atatatattt 480
atatatatat atatatattt atatatgtat atatatatta tatatatata tatatatatta 540
tatatatat 549

<210> 1787

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1787

ttccaaaata gnganancag ttaatttttag acaaatataa aataataaat aaatcgaaat 60
aaagtttgat gaacaatatt tattattaaa ttgcgattgc acaatttaag cagtataacg 120
aaatggcggtt acggattttg aagcctttta gaaactctct tggaatttgt caagatatca 180
aaaaggcttc gacgctatct gcatttgata ttcaacataa aaccctctt attagcaat 240
cagatgaaat tccaaaagca caatatgggg gtcgtcacgc agtcacaatg ctgcctggtg 300
gcggtattgg tccggaactt atgggatatg taaaagaagt tttcagatat gctgggtgtg 360
cagtagattt tgaagaaatt acaatagatc cttctgtaca ttcagatgct gatttagaat 420
atgccatcac ttcaattaaa agaaatggag ttgctattaa aggtaattt gaaacccaaa 480
gtgaatctgc acangtatta tctcgtaatg taccctgaga aacgaataga ttatttgnaa 540
tgtttaaac 549

<210> 1788

<211> 549

<212> DNA

<213> *Ctenocephalides felis*

<400> 1788

gtnagccacc attacatccg gtgagcagtc aggtgcggtg atacgtggtg tttttgatga 60
ccctgaaaat atcagctatg ccggacaggg cgtgcgcgtt gaaggctcca gcccgctcct 120
gtttgtccgg actgatgagg tgccgcagct gcggcggtga gacacgctga ccatcggtga 180

<213> Ctenocephalides felis

<400> 1791

```
aatcggcggg ggcgcncnaac gtattacctg ggaagggttcg cagaaccagg atgcggatgt 60
cagcagcgac ggtaaattta tggtaatggg cagctccaat ggtgggcagc agcacattgc 120
caaacaagat ctggcaacgg gaggcgtaca agttctgtcg tccacgttcc tggatgaaac 180
gccaagtctg gcacctaacg gcactatggg aatctacagc tcttctcagg ggatgggac 240
cgtgctgaat ttggtttcta cagatgggcg tttcaaagcg cgtcttcagg caactgatgg 300
acagggtcaaa ttccctgcct ggtcgccgta tctgtgataa taattaattg aatagtaaag 360
gaatcattga aatgcaactg aacaaagtgc tgaaagggct gatgattgct ctgctgttat 420
ggcaattgcg gcatgttctt caacaagaac gccagcaatg acggcagctg ctggaaaaag 480
tcgagctgcg gaggataacc cagcagactg gaggagtttc gaaagatgga aggatccagt 540
cccaattcc 549
```

<210> 1792

<211> 248

<212> DNA

<213> Ctenocephalides felis

<400> 1792

```
cagagacttc atatgctttg atggtaataa ctttctgagt cctgatgcat ttgataacga 60
aaaaattaaa gaacgaaaat taacttacia ggcaaggaaa aacgatagag aaactatgtg 120
tcccaaaaata taggaaaaac aagaattatc aaaataatct aaatatatctt acaatgtaat 180
aaaatattat atataaaaat aaaaaaacgt catnnttcaa aaaaaaaaaa aaaaaaaaaa 240
aaaaaaaaac 248
```

<210> 1793

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1793

```
aatccacaat tgttacnctg aacaaatcga atcattgaac gttcgcgcga gactcgctct 60
gcttatctcg cccggataga acaagcgaaa acttcgaccg ttcacgttcc gcagttggca 120
tgccgtaacc tggcacacgg tttcgctgcc tgccagccag aagacaaagc ctctttgaaa 180
agcatgttgc gtaacaatat cgccatcatc acctcctata acgacatgct ctccgcgcac 240
cagccttatg aacactatcc agaaatcatt cgtaaagccc tgcatgaagc gaatgcgggt 300
ggtcaggttg cgggcgggtg tccggcgatg tgtgatgggt tcacccaggg gcaggatgga 360
atggaattgt cgctgctaag ccgcgaagtg atagcgatgt ctgcggcggt ggggctgtcc 420
cataacatgt ttgatgggtg tctgttcttc ggtgtgtgcg acaagattgt ccggtctgac 480
gatggcagcc tgtcgttggg catttntctg ggtgtgtgct gctggacgat ggcagcggtt 540
gcaaataaa 549
```

<210> 1794

<211> 446

<212> DNA

<213> Ctenocephalides felis

<400> 1794

```
aatggctcca gcgcttcgaa aagtttatga tcaaatgcct gaaccacgtt gggtaatctc 60
tatgggtagt tgtgctaata gaggagggtta ttaccattat tcatattctg tagtgagggg 120
ttgtgataga atagtaccag ttgacatata tgtaccagga tgtcctccaa ctgcagaagc 180
tttggttatat ggttggttac agcttcaaaa gaaagttaaa cgaatgaaaa ccctgcaa 240
gtggtataga aaataaatta ttgaaaagga gaatattaat tataaaaaat atgctatata 300
aaaagtgtag aattatgttt acagtaatgt aaacaaat 360
ttgaaaataa tatgttcata atcctatagc agaattta 420
aatgaaaaaa aaaaaaaaaa aaaaaan 446
```

<210> 1795

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1795

```
attcatttca atattgggtg aaatcagtat gaattcatta ttaagttcaa tcattattgt 60
ggatattttcg gtatggttaa gtgtaatttt tgcagttaac gtaaagccca aaccaaata 120
agatgattac tgtaatctaa attgtacaaa tggaccaa 180
tgtacctaga gactgccaaa actttaaa 240
atttttaaat gcacacaata gaaagagaag acttggtgca gccggaaaag gtcttctgaa 300
agatgggtgta cacactccaa ttgctgcaaa gatgcccaac ttaacgtgga atatagcgct 360
cgccaagtta gcagaatata acgtgaagca atgcgaaatg aagcacgatt gtgctaaaac 420
tagacatggt cacactgggtc aaaacctatt ttttatggca ctactctcag cccataaaaa 480
actcaactat agcaaaatgg cagttgatgg ttggatgtga agcaaagata cangattgga 540
gatataaga 549
```

<210> 1796

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1796

```
aaatgtcatt gcgttnctat ttttgattat ttcattcagta tttcaataaa tocaacatat 60
gtctcggcac acatcattat aattaaatta ttagtatcat ttocattaat ttattttact 120
ggcgtcaata tgacggtatc aaacgacgaa ttagttgaat cttttaaagc tttaggttta 180
agtgaacaaa aggcgaaaga aacgttaaaa aatacagttg ttacgaaaaa tttacatta 240
gcattacatg aggtgagggg cattatatttg cccaaggag ctggttcttt aatctattat 300
gtggcaacaa aatcaaacc acagattata gatcaattgc ctgtacttgt aaaatatata 360
tcaacatcaa aattagacac aacagttaga gttgatgcgg ccttgcaatt tatgtgtgtc 420
catttaaatg gatatacaat cgatgaattt gagaaggctt gtggaattgg gttgtgtaca 480
cctgaacaaa ttgaaaaagc agaatgagg cttgtggaac ataaagaggc aattttgaga 540
acgatacag 549
```

<210> 1797
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1797
 antccatata atcgggttcgc gaactggttc gaacacatat ctgtgtacac gtgttagtat 60
 caaattaatt attaaaagat ataacgatcg aatcatataa gatattttgt gattatccgc 120
 gagagaaaga ataaccgctt cgctgacgta gttttggtta tcagttcatt tgattcggac 180
 gttccggcaa cttgttagta aacatgagtt tctgtgagaa caataactac acggtggatg 240
 aatgttccta tgaaaggatt aaagagacga cagaatttct aattcagaaa accaaatatac 300
 gacaaaaaat tgggtattatc tgtggatccg gaataggacc cctgggtgac aatttacaaa 360
 atgcagattc cttcgattac agtcaaattc ccaactttcc cgtaagcaca gttccgggtc 420
 ataaaggctc acttgatttt ggacacttgg gtggaatcga ggtcctttgc atgcaaggac 480
 gttttcatta ttatgaaggc tattcgtgaa tagtgtgttt cggtnagata tgaaatactg 540
 gcataccat 549

<210> 1798
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1798
 aattttatatt tgcattacta ctttatataa cgaaaacaca aatgtaaaac tcatcccaca 60
 gatgaattac ctgatgggtg ttgtggcttt gtttttcctt aacgccgtca tttttctttt 120
 catgttaatg aaatatattca ctaacaaaca aattttacca aacttcattt taagccttgc 180
 attttttaagt ggccttatct atttagttga aaccattgta attatccata aaccaattaa 240
 cggcagtaca ctgatccaga caaagtcgaa tgatgtttct attttctata ttttccgcc 300
 actcagtttt atttgtttaa cctcgtctggc gctcttttgt tatggaaaag acaacatcct 360
 tgacaacaat aagaaaaaaa cggaatcct gttgctggcg ctgatccctt ttttagtttt 420
 tccccttctg gcacacaatc tgagcagtta taacgctgac tattctttgt atgtcgcgat 480
 actgtcggac aaccatactg cgacctgggg aataacttca aaatattggt ttgctgnggc 540
 ttttactgt 549

<210> 1799
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1799
 gtaacaaaca tgacgaaaaa ggtgtcacca atttgagcat agcagcacca cctcaaccat 60
 tttctgcata tcaaccttca ccacgggtca tcacacgtat gctgcataat ccagggtggaa 120
 atcctccagt gtctattaat ccaactgtct cagtcacttg tgattccaat atgcctactg 180
 gatctgtggg attgaccacc tccccttcca gctttcaagg aaaatattac ccgcattctg 240

aaaattatatt acaaaggcoct agggggaccaa tgggagcagc tatgggaatt tatagacctg 300
 caggccctat gggtaattat ccaccacgtg gtatgtatca ttctcctcat catccattag 360
 acccctcacc ttctggtgga ggacctatca atgtgcagca aatattctcc cgacgtcagc 420
 gcctggacaa attggagctc accacctttg agactgtact ccccaaagc gcgtatgccc 480
 tatgaatcat gcatccagca tangggccag cattctaatt ttnaaatcac ttatggctat 540
 nanggcacc 549

<210> 1800

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1800

aatnaatgga ctgcgttatg aaaggactca ataaaatcac ctgctgcttg ctggcagcac 60
 tactcatgcc ttgtgcagga cacgctgaga acgaacaata cggcgcggaac ttcaataacg 120
 ccgatatccg ccagttcgtg gaaatagtg gtcagcatct tggcaaaacg atcctgatcg 180
 acccttcggt ncagggaacc atttccgtac gcagtaatga tacgttttagc caacaggagt 240
 actaccagtt ctttttaagt attcttgatc tttacgggta ttccgtgatc acgctggaca 300
 atgggttttct gaaagtgggt cgctcagcta atgtaaaaac atcgccaggg atgattgctg 360
 acagttctcg tccaggcgta ggtgatgagt tggtcacccg aattgtaccg cttgagaacg 420
 ttctgtctcg tgacctgccc cctgtctccg cagatgatgg atgcgggtag cgtcgtaatg 480
 ttgtgcatta tgaaccctcc acgtcttatt ctgccggcgt gcctcaccat taataaactg 540
 nttgagcat 549

<210> 1801

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1801

gctnagcttt tcaatatact ttaagctaaa acagacgttg taatgaatgg agaaatgtga 60
 aggatgaatt acattctaata aaaaatgatt ttaaaatata atgctacgca tatcatctat 120
 tatatgtatg tgattaatgc cgaaatctgc acagcaaaac aaanaccaa acatttatgt 180
 aaactagaat caatatttgc ttgtgtaatt gcatatttat tttgatagcc caatatagag 240
 tagatcgact tcgaaattac gaattacata cacacatgta tataatatata tatatatata 300
 tatatatata tatataatat gcataaatat acataaatat atgcntgtat atacacatgt 360
 ataaatatag aattttacat atgtgtatat gagcatatat atatatatat attcttattt 420
 aacctcatat ttataattaa ttatatggta atcgcnaaaa aaaatgataa cacaatgttt 480
 tgtaaatcat aaatcacata cgtactaaat atttagtata tgggttttcat acanccctag 540
 ncgtattat 549

<210> 1802

<211> 549

<212> DNA

<213> Ctenocephalides felis

[illegible]

<210> 1803

<212> DNA

<213> Ctenocephalides felis

gatctaaatc	ccagcttaat	accggcatcc	acgcatagat	gtttacacct	gagcgggtac	60
gtaattgcc	ggcaaccga	ctaaaaatat	ctgctttcat	tggtagcaaa	cgatttgga	120
accagacctc	tttgaccagc	ccatcaccat	cgggatcagc	aaatgcctgc	aaatacacgg	180
ttgatatttg	catatctttc	acccgctgaa	ttagcacatc	aatattgcga	tccatttgct	240
ggagggttttc	gtcataaacg	taatcaagat	cgatatgcat	tatccgttgt	ggtgattttt	300
cctgtacggt	aataatttgc	tggggcaaaact	cttttaatatga	gggattattg	gcgattaata	360
cccgcggaat	ggaatccaat	tgcgacgcat	ttgccaaacc	tgattcaagg	gtgagcccg	420
taccgaattc	gcctatagt	agtcgtatta	caattcactg	gcgtcgttta	caacgtcgtg	480
actgggaaaa	ccctgcgtac	ccaacttaat	cgcttgagca	catccccttt	cgcagctggc	540
gtatacgaa						549

<210> 1804

<211> 280

<212> DNA

<213> Ctenocephalides felis

<400> 1804

aattctgcga	tctgnnaggt	gtgcgtaatt	gtcgcgatct	gactgatttt	ggcagagaaa	60
ttcgcgcaac	ggtgctacaa	cgtaccatc	ttactgttgg	tgtggggatc	gccagacca	120
aaacgctggc	taagcttgcc	aatcatgcgg	caaaaaaatg	gcagcggcag	acgggtgggg	180
tggtggattt	atcaaactctg	gaacgccagc	gtaaattaat	gtctgtcttc	cccgaggatg	240
acgtctgggg	gattggacgg	cggatcagca	aaaaactgga			280

<210> 1805

<211> 528

<212> DNA

<213> Ctenocephalides felis

<400> 1805

```
gcgcccctat gagtgcagta tatgcaagaa gacattcaca caatcgcggg ctctgaaatc 60
tcacatgctc attcacaatg gtgagcgccc ccttgagtgc aatgtatgca agaagacatt 120
cacacatttt gttgttctga aaagacacat gctcggtcac agtgattagc gtcccatga 180
atgcagtata tgcaataaga cattcaaagg attaagttct ctgaaagaac acttgcggtat 240
tcatacagga gagcgctcct ataaatgtga aatatgcaat aaggaattta ctctattaag 300
agttttgaag aaacacatgg ccattcatag taggaagcgt gatgaaaatc agtgaaatat 360
ctgttaaatt gtattttaa atttggaaac atgttataaa atattottac atataataga 420
atgtataatt agataaaaata tattttataa atatgtaata ataaacatta aacatgcatt 480
attgtaaata aaggcaattg ttcattataa aaaaaaaaaa aaaaaaaa 528
```

<210> 1806

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1806

```
aataacctta ttgctctact aaaaatatat ataataatct ctgattttgg gacagaaata 60
attttaaata tttagatagc tttcaataaa gaataactaa tatagtatcc aattaattag 120
tctcctgtca gcatgtctac acgatggtac cctctttatc aaagaggcaa tccacagctg 180
agagtattct taccaaaatt ctggttgaaa ttaataaggc ctgttcattga acaaccacca 240
aatgttgtgc aattcgcttg ttccatgcaa atgacaaaat acgatataaa aaactattta 300
gaaaaaata acaatgttcc aatcatagat gtgagaacaa gaattcaatt aggtaaaact 360
aaacgagatt tgaaaaggata tattgtaaaa gaagaagata ctaaattagc ttatgttaca 420
ttgctaaaga agaagtattg aattttctaat atttcaaaaa agatgaagag agcagttcaa 480
gaagattgaa aagntgaatg aatcaaagaa cttataaaat acctggaaga ataaaatcac 540
cgncaccan 549
```

<210> 1807

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1807

```
aattatgatg ttgattacca tgaagatgct gataaaagcca atcaggcaact gaaagatgcg 60
gtagcggaat taatggaaaa cgaagaaatt cgcgggctga ttattggtga accgaatttt 120
gcggggattg tcggnntaag caataccngg tttacactgc gtgtttcggt caccacgctg 180
ccactcaaac agtggaacgg acgctttgcc ctcgacagcc aggtgaaaaa acatttcgac 240
ctggcgggcg ttgcgcgcgc agtgcagact tatcaggtgc tgtctgctcc gggcgcgacc 300
ccgntgaac cgttaccgcc gggggaacca acgctttaac gctggcgatt gacaaaaaacg 360
ggcgcgctg tcgnngttca taaaggtcaa ggcaataaag cactttgctt tgccctgggc 420
ctctcttttt acaccttcac cgcccancgt ccgtaaggca cgnnaccggt ggntagtttn 480
acaacgagat ccagnatgta aaccttaacc tgcttcngna ncttggttt ctcatatttt 540
ttgnaaaag 549
```

<210> 1808
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1808
 aatcaattaa atcacttaaa cctgogagtc atttcgtaat tacattaatt aaaaaactta 60
 aaatcattaa ataaataaaa aaccactaac tctatgtgaa ataaatcaaa atttcacgcc 120
 gaaatactcc ttaggatgta tagcgaaagg agaaaaagat atacctcgat ccccccttt 180
 ctcccaagtg aaaataaaaag gttatcagtt tgcaacattg aacaacattc gttgcaaadc 240
 gataacaaca tgcaccttca ggatactatt tattatgttc ggcaatgata ttttcacccg 300
 cgtaaaacgt tcagaaaata aaaaaatggc ggaaatcgcc caattcctgc atgaaaatga 360
 tttgagcgtt gacaccacag tcgaagtatt tattaccgta acccgcgatg aaaagcttat 420
 cgcggtgcgtt ggaattgcgt aaatattatt aaatgcgttg ctatcagtgat atccgcccgtg 480
 gtgaaggact ggcgctgcat tagccactga attgataaac ctgctatga cggcacagca 540
 cgcttgta 549

<210> 1809
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1809
 ttgaaagcaa aatattatatt tggcactgac taaccctgac ttttgctatg tcaattacct 60
 cagcagataa aaataattca taggaaagtg taatttataa caaacgtcgc aatatatatt 120
 tcacattttc aagatggaac aaaataattc agttgactgg caaatatcaa gaaaagaagt 180
 aagacagagg gctcaatatt ttttagaaac agggcaatgg tcagattgca aatttttagt 240
 tgggttcagaa tctaataaac aagttgtgga ggctcataaa ttatttttgg ctattgcctc 300
 tccagtattc gaagctatgt tttttggaaa tatggctgag aaaaatgata caattccaat 360
 attggatgta cagccagatg ctttcaaggc attgttagaa tataatctaca cagacaacat 420
 taatataaac tcttttgcaa agcttgtgaa ctgtgttatt gtgcaaaaaa gttatgttac 480
 ccatttggtg gagaaatgtc aaaattttat ggctgactca tgctcgaaat gtgtaagcat 540
 atgaatttg 549

<210> 1810
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1810
 gtttgaagaa aaaggaaata ttgccngcgc agcagggcag gaagatcgag gcaaagggtca 60
 cggacgagct gataaggagg cttataaacg cggataaaat taaggaggcg aatgcggnc 120
 gaccgaaggc agaaagggcc aagaaggaag cggctgcagc gaaggaaggg gatgaatttg 180
 atcaaatggt tgacggttcc aagaagccac tgaagcaacg aatcaaaaag gaagataaag 240

ataaagacaa ggataaaatg aaacagacta aattagattt tagtaaaaag ggaaagaaga 300
 acaaaaagaa aggcgcagaa aaggattctt ttggcagcga atcatcggat gaagatgatc 360
 cggattcaga ttttgaagct catgcatctt cagaatctcc taaaagacaa ttagcaagtc 420
 ggggaactaa aaanccggtg aaatacagtc tgcggagttc agatgaagaa gaagagctgt 480
 ttgacaataa acaaatggac agtgagccgt gtgtgtaccg tcttcagatc tgattccgtg 540
 tgaacctct 549

<210> 1811

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1811

aatgaaatca gtctttatgc cggttatcag gcaggaatat ggtcaacatc cccaatagtg 60
 gcaggaaagc acagatttta tagactaact cgatgctggt gtgatcggcg ataagcccca 120
 gaactgccgc tcccagacct cccatgccaa aagcaaaacc gaaaaagagt ccagaaacca 180
 taccgatacg tcctggaagc agctcctgag cgtagaccag aatggcagag aatgccgaag 240
 cgaggataaa tccaataatc accgttaaaa cccccgtcca gtgcaggctg gcgtagggtg 300
 aaatcagcgt aaacggcgca acgcccagga tagagcccca aatcacatat ttccgcccaa 360
 ttttatcccc tacaggcccg ccgatcaccg tacctgccgc acggcaaaca ggaaggcaaa 420
 cagatgaagc tgagcattct ggatagataa tccgaatttt tgcacagatc aaaaggtgta 480
 atagctgtgt gctcgcatat agaaatattt cgagaaaatg aggattaaca gatgctgccg 540
 cagtacaac 549

<210> 1812

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1812

atggctctcg cctctntatg ccgacaagct cgctctcttt ctgtctatca gaacaaattc 60
 gctactcgta cgacgcgtca gtcttcgatt gttcttgatt cagttcgcga attttcaaag 120
 aaaatgggtc tgccacgagt tttcttcgac atgaccgccg acggcgagcc gggttgaaga 180
 atcgttatgg agcttcgtaa cgatgtgacc cccaagacct gtgagaactt ccgcgccttc 240
 tgcaccggcg aaaagggctt cggctacaaa ggctcctcat tccaccgagt catccccaac 300
 ttcatgtgcc aagggggcga cttcacaac cacaacggca ccggcggaat gtccatctac 360
 ggaaacaaat tccccgatga gaacttcacc ttgaaacaca ccggcccagg catcatgtcc 420
 atggcaacgc agggcccaac accaacggat ccagttctt catacgactg tcaagacacc 480
 tgggtggaaa ccgcacgttg tctttggatc gggttgagaag gatggatgtc gtgaagaagt 540
 ggagagtat 549

<210> 1813

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1813

```
aatacgcttt ccacgggtng caaccattta aatcggttaag taaaacatca acatattgcg 60
tattcgggta gcgctccagg tagcgtttca cttcctgcgt aaaggcgcta ccccgctct 120
cttctgactg ctgaacaaaag ttctctactt caacgatatt ggtttccatg attcttcgcc 180
tttggtttgt ttttccgctc gttatcaaag cgtaaaatat aatgaccacc attcgaatct 240
gtatgcaaac taaatgtttg tcaaagtta aattgagttt gcaaaaatga aaaccactg 300
ctagattgaa aaaatattga acataaaggc catttaaaagc gcngtaatgg cgatnattta 360
gtccactttg tgagattgag catggaaaat ataatgaaca atnccggttat cgggtcgtaa 420
tgtgcangaa caggcttaag ggtcatgoga cccagactct gaagaaangt acctgatgcn 480
tctccatgca ggcgggtgct attngctnca catgcgctng cggaccgtna tacttgacaa 540
ctttgccga 549
```

<210> 1814

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1814

```
ggcgcgagc gacactgogc tggatcgtct gatgcagggg gcaccggcac cgctggctgc 60
aggtaacacg gcaactggcg gcgtgcaggt ggactcggag cagttcggca gccagcaggt 120
gagccgtaat tatcatctgc gcgggaggtat tctgcaggtg ccgtcgaact ataaccgca 180
gacgcggcaa tacagcggta tctgggtaga tcgggtttcg ccgatgatg gcggaagttg 240
tcatctctgg cttggacggg gcgtaccgcc tgccgttaac cgctgcgcgt gaaaggggga 300
tgtatggcca taaaaggctt tgagcaggcc gttgaaaacc tcagccgtat cagcaaacg 360
gcggtgcctg gtgcgcgcgc aatggccatt aaccgcgttg cttcatccgc gatatcgag 420
tcggcgtcac aggttgccgt gagacaaagg taccgggaaa ctgtaaagga aaggccaggc 480
tgaaaaggcc acgggtcaaaa atcgnaggcc agaataaagt taaccggggg gatttgccna 540
taactggta 549
```

<210> 1815

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1815

```
aattctgcgc ggctttgatt ttgacggcca ggaggcgctg aaagattctc gcgtgctgat 60
agtgggectg ggcggcctcg gctgtgcagc ctgcagtat ctggcaagcg ccggtgtcgg 120
taacctgacg ctgctcgact togcacgggt ttgcgtctcg aatctgcaac gccagacact 180
gcacagtgat gccacggctg ggcaaccgaa ggtggaatcc gcccgtagcg ccctgacgcg 240
gatcaaccga catatcgaga ttacgccagt caatgcaact ctggatgacg cagaacttgc 300
agcattgatt gctgaacacg atctggtgct cgactgtacg gataacggtg cggtagctaa 360
tcaactgaac gcaggctgtt ttgcgcgcaa ggtaccgctg gtttccggcg cggcaattcg 420
tatggaaggt caaatcaccg tctttactta tcaggacggg gaaccgtgct atcgtgctta 480
ccgttggttg tgaaaatgat taacctgogt ggaagcagcg taatgcaccg tgatcgggta 540
ttggtcgtg 549
```

<210> 1816
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1816
 atcaattcgt attagacttt ttgataaaaa atgctgtcta aagcttcgct tttggccaag 60
 gtatcccggc cactgactgt ggcagtgcga acaacatccc aggctgcaac atgccctgct 120
 cctacaaagg tagaagaagc cgatagtgt gaaagagatt tggcgaactt cccaaggcca 180
 acacgttttg aacattcacc taaagttcgc tttggattca ttccagactc atggtttgaa 240
 tttttctatg agaagaccgg tgttactgga ccttacatgt ttggaactgg ttttaattact 300
 tacttatgtt caaaggaaat ttacgttatg gagcatgaat tctatactgg tatttcattg 360
 ggtattatct gtctctatgc cactaaaaag ttgggtccac atattgcaaa atacttggac 420
 aaagaagtgt atgcctatgc cgatgaatgg aattcaggtc gtgtagaaga agttaaagt 480
 tccaagatgc cattgaagga gaaaagttgg acaatggaga gctgaagtac ttatgttgat 540
 ggatgcaaa 549

<210> 1817
 <211> 87
 <212> DNA
 <213> Ctenocephalides felis

<400> 1817
 aatttccagc gcgctcagta ccaccacgtc gagacgatca accgatgcgc ctttcgaacc 60
 ccagtttagc tactgggttg cgctgat 87

<210> 1818
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1818
 aaaaaacaaa cgcagtttgc taccatttgc ggtaaaaagt taattacaaa cactacaaaa 60
 atgaaagcgt tcatcgtagc agctttactg atcgccatgg tggcagctcg tccccagaaa 120
 gaagtggaga toctgcgtta cgacagcgat aacattggcg tcgacggtta caaatcggcc 180
 tacgagctga gcgacggaac caaccgcaa gaagaagctc aattgcagaa cgccggaacc 240
 gaaaacgagg caatctcgt cgcgggtct tacacctggg tggcacctga tggacagcaa 300
 tacaccgtca actttgtgc cgacgaaaac ggttttcgac cagaaggagc acacattccg 360
 aaataaaacc accaaattaa attagactac tatgtatgat actcaaataa tacctgcatt 420
 gaatatgtca tgtatgccaa tatattaact gaattgataa cttaatagat caaaagcaat 480
 atatatatat atatatatat atatatatat atatcgcnca atgtntgtat cattataana 540
 nttttatca 549

<210> 1819
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 1819
aataccattt tcaaaatcac catattgctt caaaaaatcg ggatgtgttt ccccaaaatc 60
ctctatatct tcccagcctt ctgcaccaga aataacggca caaatagtca acagtagaat 120
atccgataat ttatgttcca ctttccaggc ttgtctgtaa tcggggataa tagaaatatg 180
ttccatcaat tttttaagtt ccattttgtt ctccttaatt atgtaagaag tatttgatca 240
tgtataagca ataaaaaaca gottcaggta ataaggaata tctcaatttt taaacataaa 300
atgccaatta tttagtacaa aaagcaggga aagattacga aagcccgtc cccgcaagga 360
ctgacgcgag ggggggcccgtt gtcccaattc gcctatagt agtcgtatta caattcactg 420
gcgtcggtta caacgtcgtg actgggaaaa ccctgcgtta cccaacttaa tcgcttnagc 480
acatcccctt tcgcagctgg cgtaatatcg aagaggccga ccgtcgcctt ccacagttgc 540
cagctgatg 549

<210> 1820
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 1820
agtnnatcta taaagtgaca tatcaataaa tatttattta gactaagtg tttttgttta 60
taaaatctta aaaacaacaa ccatggctcg ttttatgatt gctttatccc tggcggtttt 120
aatcgctgcc gtaaccgcca ctccctacgg tgccggagga cacggaagca gtggcggcgg 180
acacggctcc gggcttgact ccggttttgg ggggcacgga agccgcggca gtggacttgg 240
aggcagtagt ttttccagt gtagccacgg tggcggaact ggaggtggaa gcagaggcca 300
tggaggccta ggcgatctg gaggttttgg aggccaagga ggccttgggt gtggacacgg 360
aggcggttga ggcgacatg gaggtcacag tggcgagga cgtggaggac atggcggcag 420
tcattotaga tgaaatataa aagagaactc tctgaaaatt tgttgaatc tgtgattccg 480
tctttatcca ccagaaatta attaaaaatt tgaattaaca atgaataata tgtatttttg 540
ataatttga 549

<210> 1821
<211> 549
<212> DNA
<213> Ctenocephalides felis

<400> 1821
cccattgtat ggagggantg ggacctgaac attcttctgg acgtttggaa agatttcttc 60
agctctcttc agatgatccc gattatttcc ctccagaatg cgaagaattt gctgttcgac 120
aattgcatga tatcaactgg attgtagcca actgcacaac acctgctaatt tattttcata 180
ttttacgtag acaaattgct ttaccttcc gtaagccatt gatcattatg actccaaaat 240
cggtgttgag acatccagaa gctaagagtt cttttgatca aatgacagag aacactgaat 300
ttatcagaat gattccagaa gaaggaccag cagcatcaga tcccagctct gtcaagaagt 360

taatttttctg ctctggtaaa atctactacg acttgaccaa tgcgcgcggt gaaaagaaat 420
 tggataattc tattgcaatt gctagagtag agcaaatttc tcctttccca tatgatttga 480
 taaagaaaga atgtgcgaaa tatctaattg aaatcttgat ggctcaagaa gagcaaaaga 540
 catgggtgc 549

<210> 1822

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1822

gctatcttgc ggacaacacc gttgcgagag caactgtcac aagggacggt gtgacccatg 60
 ctggcggttca agttttgatg agctgacatg tgaatgtggc tacagcataa ggtatccacc 120
 cattccatgt ggcgcccgca aaccaacttg tgatcaagtt tgcacaagac aacactcatg 180
 tagtcatccc gttcttcata catgtcatag tgaagccgaa tgtccaccat gtaccgttct 240
 atgttccaag tgggtgtttg gtaaacaatga gatgcgcaaa actatcccct gccacaaaaa 300
 ggatttttca tgcggcgcgc catgcggaaa agaattacca tgtggtgaagc attcatgtct 360
 attgcctctg cacaaggtg catgtctaca agacgggaag acctgtagtc aacctgtgtc 420
 tacgcctctg tcttcttgca atcatccttg tcgtaccctt gcatgaaggc atttgccaga 480
 cacaccttga aagaaaagga ttggtcatgt aatgtaaact cgtcccacca gacatgtcag 540
 aaacgtcgc 549

<210> 1823

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1823

aaaaccgcac gaactgnaaa aaccgcgcgc ccagatatcc tcttcgcgta ccacttggtt 60
 cagtcggcca tattccgcaa aggcgacctc acgaatatcc gccttgccag gctcatcttc 120
 accgccaata aaaccaatac gattaacgcc ctgggttgata tagaagtcga tgatttcttt 180
 actgatgcgt gccagatcga tatccaccgc atcgtaacgc ctgccgggtt cgtgaaagtc 240
 gataaaacag atattgtcgg tcaacgcgct ggcagcggcg cgcagggcgg gcgtgggttt 300
 gccgacaatt aaaataccgg tgacgttttt aatgtctggt aagccgctgt gttcataaca 360
 gttggtgagc tcgatgccca gcttttcgca ctgggtttca atgccgtggc ggatcgcaga 420
 tagtaaggat cgtgatctcc agctcctgtg gagctgtaga tagccagaat atgggttggt 480
 gactgacctg ttggagttac ggcactactg gcttgactca nttttcgga tctcgnaatg 540
 cgatgttcn 549

<210> 1824

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1824

gtcgaactac acgttttggc gacagatttt tCGtacattg tcaataatta atattttaac 60
aaaagcgaat acagtgaacg gtcagtgatt tttatgttat cCGttaacgt aattcacttg 120
tgatacaaag caataggccg tcaaaacaac cgtgcgggta taatggcagc actccctcgg 180
cgtataataa aagaaacact tCGactaatt caggagccag tgccgggaat cagtgtctatt 240
ccggatgaca gtaatgcacg ctattttcat gtcgtcgtag ccgggcccgga ggactctcca 300
ttcgagggggg gctcatttaa actagaatta tttttacccg aagactaccC catgtctgcg 360
cccaagggtca gatttatcac gaaaatatat catccaaata ttgacagact aggtcgtatc 420
tgtttggaCa tactgaaaga taaatggagc cccgctctta aatcagaacg gtactcttat 480
caatacaagc cttactgagc gccctaattc agatgatcct ttggcaatga tgtggtgatg 540
tggaagtaa 549

<210> 1825

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1825

aattcggtaa ttaattctta acatgctttt actaataatc tcaattgctg gccctataat 60
attgcgctag cattgctttc tggttgtatc agcgatactc aaaaattctt aatacaatac 120
tcattcgact ggtacttatt tgtaactcag ttatatTTTT tCGcccggtg attcagaaga 180
atgcaaaaaa cggctaccac tccatcaaaa atacttgatc tcaactgcgc ggcattttta 240
cttgtcgctt ttctgacggg tattgcgggc gctcttcaga ctctaccct aagtatattc 300
ctcgcatatg aactgaaagc cgtcctata atggtaggtt ttttcttcac cggtagcgct 360
attatgggaa ttctggctag tcaatttctg gcaaggcact ccgataaaca aggcgaccgt 420
aaattactga ttctgctatg ttgcttattt ggagtgtggt ctgccgcttt ttgcgtggaa 480
togcaactac ttcatctctc tctcaacggg cgtcttctga gtagtttggt caccgaaacc 540
cgaaatgtc 549

<210> 1826

<211> 541

<212> DNA

<213> Ctenocephalides felis

<400> 1826

aaggnggttt agtaatatta gccaatatgg caaagtattt agggctagat aaagtcgctc 60
gcttatttag gattgtgtct gctaattggc gaattagagg aagtcttgca aaactggcaa 120
gaacagatga tttaaaaactg ggcaactctag taggagaaga caaatacggg aataaatatt 180
atgaaaaata tgaatacttc tacggacgta atagatgggt cgattatgct ccacatgttg 240
gattaaatta tgatgcctcc caagtgtgtc ctgagtgggt tggttggctc cattacaaaa 300
cgatcttcc tccaacaaaa gatccagcca gagcgcatca taaatggatg tcgaatcata 360
gtgaaaactt atctggaaca gatcgtcaat atgttcata ttccactact gttcccaaaa 420
tcaggcatgg aatcccaatg caaaataagt catgaaaatt ttggatttac ttagtctaata 480
tgtaataatg taattctatt taaaattatg gacaagatca agttaaaaaa aaaaaaaaaa 540
a 541

CCGTTTGGC GACAGATTTT TCGTACATTG TCAATAATTA ATATTTTAAC

<210> 1827
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1827
 ggaagtcgga ctccggcacia agaccgactt ttgccgaagc ccggcacgat ctgaccgccc 60
 tgcaccgtgc agagtctgcc gccctggacg ccatggacga tgcctcaacg acggactgtt 120
 ttgatgtcag tggattcagc gaggactacg aaaatggagt tgtgtatttt gataggcgga 180
 tttcggaatt tgaatgtgat atttgattta ggctcaaatt gcacatcggg aaaatcaaatt 240
 tattatctag ctttgtgcaa ttgggagggg acatcgattt gcagatactt tcttgagcaa 300
 atatttttat atttatcaaa tgcatagtat ggaaaagtct ctagatactt tgggtctagta 360
 cctggattat agcgaataa gccaaatttt caattatata aacagaaaat tatttaggct 420
 caaattgcac attggcattg aatttgccga aattgatttt ctagcttcgt ataattgtat 480
 tagaagcatt gatttttttt tggaatacaa aaaggcgtca agtgaaggaa aaattgattt 540
 ggagatata 549

<210> 1828
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1828
 cacaagacat gtcagctgag tcttagtcct tcgtctgctg ctaaaagtat attagaaaat 60
 cttgtatttt taatatttgt gtttgatttt ccagtcggtt acgttatata cattatcaca 120
 gaatcatggg gcaagattcg ggagtaaagg attttccttc tttgcctgaa gacaaaatag 180
 atatgattgc tgctaccagc ttattacaac aacatgctgc ggatatccgt cagcaaaaaa 240
 ttaactggac atcatactta cagtctcaaa tgatcactca agacgacttt aatttcataa 300
 gtgcttatga ctctactgat tctaagggcc gcataaggct tctcacagat cgcactcaag 360
 cagctaaaac atttttgaac atcctaacac atgtcagcaa agatcaaaca attcaatatg 420
 ttttaatttt gattgatgac atgctgcagg aggatagatc cgtgtcgata ttttccatga 480
 gtatgctgta aaaccaagaa agtgatgggc ccttcatgaa ttattgatcg cagacagttc 540
 attgtacat 549

<210> 1829
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1829
 ggctcgttc gccgcctgca atgccccggc ttcacgcccg gaacgctgca actgagcaac 60
 atacgcaatc tgctccgccc acacgttatg gaactggcga gccatcgccg tcagccccga 120
 cgtcgggtct gtggtcagct tcccgaggc ttcagcgacc ttgtccacct ccacgcggga 180
 tgcagaggag aaacgcgcca cactctggct gatggacgca atctgagcct caccgcttac 240
 ccccgctta accagtgcgc tgagtgactc gctggctctgg ttaaagctca gccctgccgc 300
 ctgccccgct ctggacagga ccagcatacg atctgccgtc agtccccgtg attgccggaa 360

aggaccagcg ttttgttgaa atcggacagg gttgagttgc ctgataccag gcatacgcca 420
 gcgcaccggt cgcaccgcag cgaggtggcc ccacatcggc aggggtgatcg accggcaagc 480
 cccctgaaca tggggatatc cgccgaagga gtcttacctg cccctgtgc anaggatagc 540
 acggatttg 549

<210> 1830

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1830

aagtgtcagg gcgtcttaag gatcatttgg acttcttaat taatttccaa ataatggctg 60
 atgcaaccga aggaacatt gaaaaactat ctaaaaatga gctcaaaagg aggttgaaaag 120
 cagagcaaaa ggcaaaagaa aaagctgaaa aggcagcagc tgtaccagaa aagcctgtaa 180
 aagaagccaa aaaggaagta acaaaagttg atgaagaaat tagcccaaat gaatatttta 240
 aactccgaac tgctgcagta actgcattaa aaaattcaaa tgatcctgat cagcatcctt 300
 atcctcataa atttcatgtt agcattgggtt tgactgagtt tatagagaaa tacaaggatc 360
 ttcaggatgc gcaaatattg gaagatgtta ctttgtcagt tgnccgaaga gtgccgccat 420
 cagggagtct ggagctaaac ttgtatttta tgattgaggg gagaagggtg caaaattcaa 480
 gttatggcaa atgcaaatat tagttctgag gaaaaatcca gaagacacat cgaaatccgc 540
 gtggtgtat 549

<210> 1831

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1831

aatcgcggcg gtgatcattg agcogattgt ccagggcgca ggccgggatgc gcatgtacca 60
 tccggaatgg ttaaaacgaa tccgcaaaat atgcgatcgc gaaggatatct tgctgattgc 120
 cgacgagatc gccactggat ttggtcgtac cgggaaactg tttgcctgtg aacatgcaga 180
 aatcgcgccg gacattttgt gctcggtaa agccttaacc ggccggcacia tgaccctttc 240
 cgccacactc accacgcgcg aggttgcaaa aaccatcagt aacgggtgaag ccggttgctt 300
 tatgcatggg ccaactttta tgggcaatcc gctggcctgc gcggcagcaa acgccagcct 360
 ggcgattctc gaatctggcg actggcagca acaggtgggc ccggtaccca attcgcctat 420
 agtgagtcgt attacaattc actggcgtcg ttttacaacg tctgactggg aaaaccctgc 480
 gttacccaac ttaatcgctt nacacatccc ctttcgcagt ggcgtatagc aaaggccgac 540
 cgatcgcct 549

<210> 1832

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1832

<210> 1835
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1835
 gtggcttcgg ctttgataac ttcctcaaga ttattcattt tgattgtggt aaaaaatgcc 60
 ttctttaaac ttgagcgaaa atgatcgtgc tgtgttaa atgtatattta atccgtctca 120
 accattagga gaaaatgcat tcgaggaaga tattccagaa ttattagaag atcaagaaga 180
 cccggaaaca ccatttttga acgacgcacg agccttgga gctgaagctg tccgtttggc 240
 cgaagccggg gatttggcag ccgcgctgac cgtggtggac cgcgcatag acctgctgcc 300
 cggctgcctt tcaggttaca acaatcgcg acaagttcac aggctggcgg gacgagacca 360
 agatgctttg tcggatttaa ctatggctgt gaacctcagc tccggaaaag gaagatctgg 420
 tgtgcaggct ttatgtcaac gggcctctgt cagaaaaact ggtgaagacg attagctcgg 480
 gaagatttaa caaagcgaag cttagctcac ttgcaaaaat cagtagtgga atgaatctta 540
 tntgnttat 549

<210> 1836
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1836
 ctttactccg agcaagtngt gggacgactc attattattt attttgtgat aatcttttaa 60
 atctcctaaa atgaggatct acaaagacat cattactggt gatgagatgt tctcagacac 120
 atataaaaata aagttggtcg atgaagtttt gtacgaagtg accggcaa attggtttcaag 180
 gtctcaaggg gatattccaaa ttgaaggttt caacccatct gctgaagagg ctgatgaagg 240
 aactgaaaca gccacggaat ctggtggtga tgtggtctta aatcacccgc tttgtgaaac 300
 ttttgccttc tcagataaaa aatcatacac tctttattta aaagattata tgaaaaaatt 360
 ggtggcgaaa ttagaggaga aatcaccaga acaagttgag gtattcaaaa caaatatgaa 420
 caaagtcatg aaagaaattt aagccgttta aagaaatgca aatgttcaat ggtgaatcaa 480
 tggttgtgat ggcattggtg ctcttatgga atatcgtgaa atagatggtg aatctgtcaa 540
 ttctgtgtc 549

<210> 1837
 <211> 549
 <212> DNA
 <213> Ctenocephalides felis

<400> 1837
 gttcaataa ttctttatgt tttaaacaat cgttatagtt taatagatgg tcagttataa 60
 atttagcgtt tatctattgt tatttggtac tcgttagtta gtattatttt aagtaggatt 120
 cagtgaagtga tatttgtgaa ttactcgaaa cacatacata tataaactca gaataatggg 180
 aactcgagat gacgaatacg attatttgtt caaagtgggt ctaataggag actcgggtgt 240
 aggaaaaagt aatttgcttt ctgccttcac tagaaatgaa tttaatcttg agagtaaatac 300
 cacaattgga gttgagtttg caacgaggag tatacaggtt gatggtaaaa caattaaggc 360

gcaaatatgg gatactgctg gccaaagaaag gtatagagct ataacatccg ctattataga 420
ggagctgtgg tgctctotta gtttatgaca ttgcaaagca cccaacttat gaaaatgtag 480
aacgtggtno gagagctaag agatcatctg acagaattag tgtatgctgt gggaaacaaa 540
ttgtctgaa 549

<210> 1838

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1838

attttttttg ccgggtcgtg gtaaccaatt taaggataat ggctcctcca ccatacgag 60
acttgggaaa acaagctagg gaggtattta acagtggcta tcatttttgt cttttcaa 120
tgaatttgaa aactaaaact gcctctgggg ttgaattcac ttcaggagga acttntga 180
atgaaactgg caaggtattt ggatctttgg agacaaaata caaagtaagt gattacgg 240
tcactttttc tgaaaaatgg aacacagaca atacttttagc tacagaagtt tccataca 300
atcaaatagc taaaggtttg aaagtatcat tcgactgctc tttcgacca caaacggg 360
gcaaaactgg tgttttgaaa actgccttct tacatgatag tgttgagta aatgctgat 420
taaatttgaa tttatcagga cctttgatca atgccagcgc agtagtttgt atcaaggat 480
gtggcggtat aaactggatt tgntctgaaa ttcaaggcac aaagacactt tgccttggat 540
ctcacagga 549

<210> 1839

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1839

attaaaaatatt tattgttnta attgaatttt gagttggttt tgagaagcta gtgccatgtt 60
tgattcaagg attactgtcg gtttgcgtgct gacaataagc tgttacttag tgcgtccct 120
gccccaaaga ggaggattcc aacctcaggc tccaggaaac caaataccaa ttttacggt 180
ttcattcgaa cctaattccag atggttctca caattacaac tatgaaactg gaaatgga 240
tcaagtagaa gagcaagggt acttgaaaaa tgctggaaat ccacaaacag aagctcagg 300
gatgcaagggt tcctactcct acacgggccc cgacggagtc gtctacacgg tgaaatacat 360
agccgacgaa aacgggtttcc gggccgaagg cgcccacata ccctcggcag gaggaccgc 420
aaggcggcgc ccggcggtag attttctagg aaggaaaaca tctagnccca ccacaacatt 480
ttaattatga aaaacacagc gccatgatgc gagtcgagga acaatggact ataataatta 540
atctncng 549

<210> 1840

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1840

gccaacttgt atgccacgtc gaaaacacta aaaacaaatc gaattaaata aaattataaa 60
ataaaacaaa tataataaca aagtattaaa acgtgtgata tattatttat attattatta 120
ttatcaaaag tgtgagaacg tacaacgctc ttgttaattt tccagacagg aatttttagt 180
gttgccatat atataagcgc gaggaagat ttacatacaa gatgggttgc ggaatatcgt 240
tcgttaaata cgttctgttc gtgttcaatt taatatttgc gctatgcggt ctgcgagtgc 300
tcgccgttgg cgtggtcttc aaattgaagt tctcagagat ccagcaaattg ctccaggact 360
taaacgtcca ggccgcacca atactcttca tcaccgttgg aagcatagtc ttcataatcg 420
cttcttcggg tgctgcggag cgattaggga aagtcattgt atgacagtca cttcgcagtc 480
ttttaatcgt ttgctgacgc caagtcgtga tcgcgctgtg tcttgcgtat gcgtgcatca 540
acaagatct 549

<210> 1841

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1841

aattaaacgt gcaactggaag ggggcataaa tttctttgat accgccaaca gttattctga 60
cggcagcagc gaagagatcg tcggtcgcgc actgcgggat ttcgcccgtc gtgaagacgt 120
ggtcgttgcg accaaagtgt tccatcgcgt tgggtattta ccggaaggat tatcccgtgc 180
gcaaattttg cgctctatcg acgacagcct gcgacgtctc ggcatggatt atgtcgatat 240
cctgcaaatt catcgtctgg attacaacac gccgatcgaa gagacgctgg aagccctcaa 300
cgacgtggta aaagccggga aagcgcgtta tatcggcgcg tcatcaatgc acgcttcgca 360
gtttgctcag gcaactggaac tccaaaaaca gcacggctgg gcgcagtttg tcagtatgca 420
ggatcactac aatctgattt atcgtgaaga agagcgcgag atgctccact gtgtatcagg 480
aggcgtggcg gtattcatgg acccgcgtgca agggccgttg accgtcgtgg gagaactccg 540
acgntgngt 549

<210> 1842

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1842

aatatcgccc tgaacctcgc aaacctgaat ggttttctcc ggttgngggg taaaccactg 60
gatgtaacgc agcgggaagg gaagggcaaa cagcacgacg gccaccacca gcggacgcca 120
gttgcgtttg accaacgcca gtgccagcag gccactaacc atcatcagca ggaagttaat 180
ggcttccacg cccattatcg gtgccagccc ttttaacggg ccatcaatct ggctatagcc 240
gaactgtaac cacgggaagc cggtcagtac ccaaccgcgc agaaactcgg tcaattgcca 300
gagggcaggg gcggcaatcg ctacgcgcag ccagggtggt ttcggccaca gacgcgacag 360
cacgccagca aacagtccgg tatacagcga caaatagcc gcagcagcac caccaggaag 420
atgttaaccg ggccaggcat tccgcaaagg tcgcgatgct gacatagacc cagttatccg 480
ctgcaaagag gcnaatncca gcaaaagcca atagcggcag atggagtgcg ggcggtaaa 540
gcaacgctg 549

gaancctaaa ggtgaaggat acaaaggcag taaattccac cgtgtcatca aggacttcat 60
gattcaaggt ggtgacttca ccaggggaga tggaactgga ggccgctcaa tttatggaga 120
acgttttgct gatgaaaact tcaagttgaa gcattatggt gctggatggt tgtccatggc 180
aaatgctggc aaagacacta acggatctca attctttatc actacaaaag ccactggctg 240
gttagatgga cgtcatgttg tattcggaaa agtgattaag ggaatggatg tggtagaggaa 300
aattgaatca acatcaacag attccagaga caaaccacaa cgtgatgttg aaattgtaga 360
ctctggtgct gaagctgttt ctgaacccta cgggtgtggc aaagaagatg caactaatta 420
aatgatttat taattttgat aatttttaac cacttcaaga caaattgttc tgataaataa 480
aacatttttt aaaaaaaaaa aaaaaaaaaa 508

<210> 1849

<211> 549

<212> DNA

<213> Ctenocephalides felis

<400> 1849

aattattggc tgggtctntt aaactacaac aagggtaaaa aagatgatgc ggcgtactat 60
tttgcttcgg tagtgaaaaa ctatccgaag tcaccaaagg ctgcagatgc gatgtttaaa 120
gtcggcgtca tcatgcagga caaagggtgac aatgcggctg gctaagtcgc gtttttcgtg 180
ttcatacaca tacgacagca ccgcgaaacc ttgcgtgccg tgctgctggg tggcctcttg 240
cgccagggcg ctacgcagaa tgtcgcggat agcttcggaa cggttgttat aaccacgacg 300
ctggctcagg ctgtccagcg tctccagtaa atcgtcatca agcgtgatgg tgactcgttg 360
catttgcggt aaaccttttc tgtggtgcga cggcgcacgg ngaatgcggg taataccgcg 420
ttttgtagca cagtcgcggc gtcagaggaa aagggttaatt tctctccacc actgggtttt 480
gacgattgtc gtgtcataac attacccgtg gaaaagcgtt ctacagcgta gtcgtggtga 540
tgacagnan 549

<210> 1850

<211> 348

<212> DNA

<213> Ctenocephalides felis

<400> 1850

taagcattta tgtatgacta tgtaaaataa atgaatttat attttatcat ttttctaatt 60
caattataat gatgaagaat aaaaaaaaaa tcatcttgtc aaagataact taaaaaataa 120
ttaaatataa atagatttat ctaaaagcag ttcgtcttat gagaatttat attgaaatgc 180
tatgttaact tgtatggcgg tgttgatatt tacaaaataa aacttcttac ctaaagtgg 240
gttggtagaa gtgtttccaa aaccaaatgt gctagtgtgct ggtttggtta atgtattatt 300
aaataaagag tttgaagtag ttgtttgacc aaatcctcca aaaccagt 348

<210> 1851

<211> 436

<212> DNA

<213> Ctenocephalides felis

<210> 1855
 <211> 332
 <212> DNA
 <213> Ctenocephalides felis

<400> 1855
 atccttcagc acatttgcaa ccaatataac attctctaga acaaggtcca ggtaaactcgt 60
 tcatgtagtt agcacaagtt cttggacaag aagtgccaca ggaagtaaatt tcttcatttt 120
 ctgggcaagt tgtgttcaca gcaggcaaag gatcaacaag gtcttctgga agaatttcac 180
 ctggaagagt ttcttctgga agcgtttcat cacagtagac aaaagcagcc aacacaaggc 240
 aactcaatac agtaactaat ataactttca ttttgtaaca aacttttctt cactctaaaa 300
 tagatctaaa aattcaaattc gatcgatcgc ag 332

<210> 1856
 <211> 341
 <212> DNA
 <213> Ctenocephalides felis

<400> 1856
 gagcatgggt tggacgcaga aataagtctc cacaagctat ggctgcttgt gtcagtcgtg 60
 cttgggtggog ttggcagcac aaatatattc acccaagaaa agctggaatt gcaggattct 120
 atcaattgac tgttggatca atgattttgt tctatgcttt gaactacggc aagatctctg 180
 ctcataagaa ctacaaatac cactaaaacc aaacatctta cgatggtagt gtgtctgttg 240
 atggcagaat aaattttctaa atgtaaaatc tgtatcaata tacaattcaa tatattaaat 300
 tacacgagaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 341

<210> 1857
 <211> 238
 <212> DNA
 <213> Ctenocephalides felis

<400> 1857
 ttctcatcca atcaaatttt tctaattctt ccataataat cggaagaacg agcattcccg 60
 gtgcgcccat tactattctt gataaaacaa cttgactgat tccctttgca gcagctaacc 120
 gtgactttcc tataatgcgg cttcactat ctacaacgct tattctctgct aataattctg 180
 tttgacgcat catcggaata ttaacgcaat tagcagctgc tactgcggca aaaggaac 238

<210> 1858
 <211> 263
 <212> DNA
 <213> Ctenocephalides felis

<400> 1858
 ccaaaatttta ttgtgatatn ngtaacacaan ntgtganann ttttgtggaa ncanaanang 60
 tantggtntt gcngttaant attataagga tactaatagt gatgttgtaa gagttaggac 120

taatagatga gtcttcttca attttgataa acatattttt ataatctgtg ttaaattttg 180
 cacttgtaat gctgtgcttt ttaatgaata aacatgcaat attaaacttc gaaaaaaaaa 240
 aaaaaagtta attncttgct tgt 263

<210> 1859

<211> 613

<212> DNA

<213> Ctenocephalides felis

<400> 1859

agctgcccac tatagggcta aagcggccgc cngggcaggt gttggacaaa aatattttaa 60
 attaagaaga aataaatgaa atatttataa ttattaaaga atcttgtatc gtgcaaaaca 120
 taaatgatat ataaattaat ttogatctct taataaaagt attatttcaa ttaccttatt 180
 tgatgagaaa atgcacaaca aaatcctggc cctgggtgtt taccatgtcg tcctgatgtt 240
 taccatggta gtcgccaaga ctacacatga agacaccaat gataattcta cagacgtctt 300
 actggagttg cccaaatcga tgaacaatga tgaaaagttg ttcctgacaa ctggtcaa 360
 tttggaaggg actactgtat atagtacga attggcagat ttcaatataa cagaaaatac 420
 agtaaacgta acagccgaca aagtagccct aaaagaaatc acacctgacc atcaccatcc 480
 agtagtgact tctacacaaa aaacaatttt aaacgcatcc acgaccgttg aaaaaaatcc 540
 tggacatcaa accagtattt cagaagaatc taccacaaaa ttggtaaaaa caaccactga 600
 agacaaccac ctc 613

<210> 1860

<211> 613

<212> DNA

<213> Ctenocephalides felis

<400> 1860

gaggtggttg tcttcagtgg ttgtttttac caattttgtg gtagattctt ctgaaatact 60
 gggttgatgt ccaggatttt tttcaacggt cgtggatgcg tttaaaattg ttttttgtgt 120
 agaagtcact actggatggc gatggtcagg tgtgatttct tttagggtta ctttgtcggc 180
 tgttacgttt actgtatttt ctgttatatt gaaatctgcc aattcgtcac tatatacagt 240
 agtcccttcc aaaatttgac cagttgtcag gaacaacttt tcatcattgt tcatcgattt 300
 gggcaactcc agtaagacgt ctgtagaatt atcattgggtg tcttcatgtg tagtcttggc 360
 gactaccatg gtaaacaatca ggaogacatg gtaaacaacc aggaccagga ttttggtgtg 420
 cattttctca tcaaataagg taattgaaat aatactttta ttaagagatc gaaattaatt 480
 tatatatcat ttatgttttg cagcatataa gattctttta taattataaa tatttcat 540
 atttcttctt aatttttaaat atttttgtcc aacacctgcc cnggcggccg ctttagccct 600
 atagtgggca gct 613

<210> 1861

<211> 2739

<212> DNA

<213> Ctenocephalides felis

[illegible]

<222> (191) .. (2206)

agctgcccac tataaggcta aagcggccgc cngggcaggt gttggacaaa aatattttaa 60

attaagaaga aataaatgaa atatttataa ttatttaaaga atcttgtatc gtgcaaaaaca 120

taa atgatat ataaattaat ttcgatctct taataaaaagt attatttcaa ttaccttatt 180

tgatgagaaa atg cac aac aaa atc ctg gtc ctg gtt gtt tac cat gtc 229
Met His Asn Lys Ile Leu Val Leu Val Val Tyr His Val
1 5 10

gtc ctg atg ttt acc atg gta gtc gcc aag act aca cat gaa gac acc 277
Val Leu Met Phe Thr Met Val Val Ala Lys Thr Thr His Glu Asp Thr
15 20 25

aat gat aat tct aca gac gtc tta ctg gag ttg ccc aaa tcg atg aac 325
Asn Asp Asn Ser Thr Asp Val Leu Leu Glu Leu Pro Lys Ser Met Asn
30 35 40 45

aat gat gaa aag ttg ttc ctg aca act ggt caa att ttg gaa ggg act 373
Asn Asp Glu Lys Leu Phe Leu Thr Thr Gly Gln Ile Leu Glu Gly Thr
50 55 60

act gta tat agt gac gaa ttg gca gat ttc aat ata aca gaa aat aca 421
Thr Val Tyr Ser Asp Glu Leu Ala Asp Phe Asn Ile Thr Glu Asn Thr
65 70 75

gta aac gta aca gcc gac aaa gta gcc cta aaa gaa atc aca cct gac 469
Val Asn Val Thr Ala Asp Lys Val Ala Leu Lys Glu Ile Thr Pro Asp
80 85 90

cat cac cat cca gta gtg act tct aca caa aaa aca att tta aac gca 517
His His His Pro Val Val Thr Ser Thr Gln Lys Thr Ile Leu Asn Ala
95 100 105

tcc acg acc gtt gaa aaa aat cct gga cat caa acc agt att tca gaa 565
Ser Thr Thr Val Glu Lys Asn Pro Gly His Gln Thr Ser Ile Ser Glu
110 115 120 125

gaa tct acc aca aaa ttg gta aaa aca acc act gaa gac aac cac ctc 613
Glu Ser Thr Thr Lys Leu Val Lys Thr Thr Thr Glu Asp Asn His Leu
130 135 140

ggt gta aag agc ctg aat gaa cct ggt gat gaa caa gaa tta aaa aaa 661

Gly Val Lys Ser Leu Asn Glu Pro Gly Asp Glu Gln Glu Leu Lys Lys			
145	150	155	
cca tca tca cat ggt aag gag cat att tct tta cca gtg gct tca cca	709		
Pro Ser Ser His Gly Lys Glu His Ile Ser Leu Pro Val Ala Ser Pro			
160	165	170	
gta cca cca gta tcg cat atc ttc cag gct aca cca gga gac ctt tgt	757		
Val Pro Pro Val Ser His Ile Phe Gln Ala Thr Pro Gly Asp Leu Cys			
175	180	185	
cca gcc ttc gac gat gca gat cgc ttc acc cag aca gaa ctt ttg tcc	805		
Pro Ala Phe Asp Asp Ala Asp Arg Phe Thr Gln Thr Glu Leu Leu Ser			
190	195	200	205
agg ctg aca aac gat tgc agg tac gat aag ctg gag cgc cct ttg ggg	853		
Arg Leu Thr Asn Asp Cys Arg Tyr Asp Lys Leu Glu Arg Pro Leu Gly			
210	215	220	
cct cac aat ggt gca ggg ccg ctc ccg gtg gcc gcc aga att tac gtg	901		
Pro His Asn Gly Ala Gly Pro Leu Pro Val Ala Ala Arg Ile Tyr Val			
225	230	235	
tat ttt ata caa aat acg gac gcg cac gaa ttg tca ttt tcc gtg acc	949		
Tyr Phe Ile Gln Asn Thr Asp Ala His Glu Leu Ser Phe Ser Val Thr			
240	245	250	
gtc ctc ctc caa ttt cgt tac cag gac gcc aga ttg gcc tac aaa aaa	997		
Val Leu Leu Gln Phe Arg Tyr Gln Asp Ala Arg Leu Ala Tyr Lys Lys			
255	260	265	
gtg gca ccc acc agg acg gtc atc atg gcc gaa tcg cag ctc agg gac	1045		
Val Ala Pro Thr Arg Thr Val Ile Met Gly Glu Ser Gln Leu Arg Asp			
270	275	280	285
aaa atc tgg gta cca cat gta ttc gtt gcc aac gag aga tct tcc cag	1093		
Lys Ile Trp Val Pro His Val Phe Val Ala Asn Glu Arg Ser Ser Gln			
290	295	300	
gtt atg ggc aca gat gcc caa tct aag gac atg ttg gtg tca gta gct	1141		
Val Met Gly Thr Asp Ala Gln Ser Lys Asp Met Leu Val Ser Val Ala			
305	310	315	
cct gat ggt aca gtc gtc ttt tcg gtc agg atg aag gca act ttg tac	1189		
Pro Asp Gly Thr Val Val Phe Ser Val Arg Met Lys Ala Thr Leu Tyr			
320	325	330	
tgt tgg atg aat tta agg aaa ttt cct ttt gat gaa caa cag tgt cag	1237		

Cys Trp Met Asn Leu Arg Lys Phe Pro Phe Asp Glu Gln Gln Cys Gln	
335 340 345	
atg atg ttg gaa agt tgg aag tac aat aca agt gaa ctc cta ttg act	1285
Met Met Leu Glu Ser Trp Lys Tyr Asn Thr Ser Glu Leu Leu Leu Thr	
350 355 360 365	
tgg gaa cca act gca cca gta act tta gca cca gaa cta cat ttg acc	1333
Trp Glu Pro Thr Ala Pro Val Thr Leu Ala Pro Glu Leu His Leu Thr	
370 375 380	
gaa tat gtc ctt act gac atg tgg gta aat gaa aca gtt gtc aag gct	1381
Glu Tyr Val Leu Thr Asp Met Trp Val Asn Glu Thr Val Val Lys Ala	
385 390 395	
gat ttg gat gac ctg aga cac gga gca ttt ggt ggg aca tac agt gcc	1429
Asp Leu Asp Asp Leu Arg His Gly Ala Phe Gly Gly Thr Tyr Ser Ala	
400 405 410	
tta agt ttc acg att caa ata agt cgt gaa atg ggt tac tat tta atg	1477
Leu Ser Phe Thr Ile Gln Ile Ser Arg Glu Met Gly Tyr Tyr Leu Met	
415 420 425	
gat tac ttt ttg cca tca gta atg atc gtg tgg tgt tcc tgg gta agt	1525
Asp Tyr Phe Leu Pro Ser Val Met Ile Val Ser Cys Ser Trp Val Ser	
430 435 440 445	
ttt tgg ctg gca gca gac caa tca gca ccc aga gtc acc tta ggt aca	1573
Phe Trp Leu Ala Ala Asp Gln Ser Ala Pro Arg Val Thr Leu Gly Thr	
450 455 460	
agc acc atg tta tca ttt atc act tta gca agt gcc caa gga aaa act	1621
Ser Thr Met Leu Ser Phe Ile Thr Leu Ala Ser Ala Gln Gly Lys Thr	
465 470 475	
tta ccc aaa gta tgg tac atc aaa gct tca gaa atc tgg ttt tta ggt	1669
Leu Pro Lys Val Ser Tyr Ile Lys Ala Ser Glu Ile Trp Phe Leu Gly	
480 485 490	
tgc acc ggg ttt att ttt ggg agt tta gtg gaa ttc gcg ttt gtc aac	1717
Cys Thr Gly Phe Ile Phe Gly Ser Leu Val Glu Phe Ala Phe Val Asn	
495 500 505	
aca att tgg aga cga agg aaa aat gtg gaa ttg aaa aaa gtc aac agc	1765
Thr Ile Trp Arg Arg Arg Lys Asn Val Glu Leu Lys Lys Val Asn Ser	
510 515 520 525	
aag tat att ttg aag tca act ttg acg ccg agg ttg gcc cgg aag gag	1813

Lys Tyr Ile Leu Lys Ser Thr Leu Thr Pro Arg Leu Ala Arg Lys Glu
530 535 540

ttt cat gct tcg ttt aat tcg aat cct gga ggt ggt aat aag gat gat 1861
Phe His Ala Ser Phe Asn Ser Asn Pro Gly Gly Gly Asn Lys Asp Asp
545 550 555

cag gat ttg gga aga ggg att agg gtc ttt ccg ccg cct ttg gtc aag 1909
Gln Asp Leu Gly Arg Gly Ile Arg Val Phe Pro Pro Pro Leu Val Lys
560 565 570

gct agg tct tgt tcc agt ctg gat agg agt aat gga tcc ggg aat ttt 1957
Ala Arg Ser Cys Ser Ser Leu Asp Arg Ser Asn Gly Ser Gly Asn Phe
575 580 585

ttg agc gtc cat gga aat gat cac aaa gtt cca aca ata aca gca caa 2005
Leu Ser Val His Gly Asn Asp His Lys Val Pro Thr Ile Thr Ala Gln
590 595 600 605

tgt gca gac gat gcc gca agt gac cag att tca gtt tgt gtc gat ggg 2053
Cys Ala Asp Asp Ala Ala Ser Asp Gln Ile Ser Val Cys Val Asp Gly
610 615 620

gaa aac gaa gaa cct gca caa att gtt cac cac acc tgg acg acg atg 2101
Glu Asn Glu Glu Pro Ala Gln Ile Val His His Thr Trp Thr Thr Met
625 630 635

aca cct caa gaa att tcc atg tgg att gac aaa agg tcc aga att tgt 2149
Thr Pro Gln Glu Ile Ser Met Trp Ile Asp Lys Arg Ser Arg Ile Cys
640 645 650

ttc ccg ata gct ttt gct ata ttt aac ttt ttt tat tgg ata ttt gtt 2197
Phe Pro Ile Ala Phe Ala Ile Phe Asn Phe Phe Tyr Trp Ile Phe Val
655 660 665

tat tat tta taaacacact taatatactt atagtttttaa taattaataa 2246
Tyr Tyr Leu
670

atttataaaa taattaataaaa taaatatatg taaaatttaa aggaaacgtg aatagaatca 2306

aaagagattc ttattggatt attccattat taataggatt ottactagac aatattaatg 2366

atattatatt atatatcact tataactttt gaacggtttg ttaaaaatga atacaatatt 2426

tgacaaattt atataaaatt aaacaattta taatattgtc gaacatctta ccaccctaca 2486

gcgactcagt atactcgaaa atcgctattg aaatatctta cacaatttag tcattcctat 2546

ttcacatata atagttaata attaaaattg aaatttttaa ttaaaaaata atgatactgg 2606
 aaattttaat tttaattatt aattattata tgaataatta attttactgc atagttataa 2666
 ttataattat aaatattaaa tttttagaat aaatactcag ctggtctgaa aaaaaaaaaa 2726
 aaaaaaaaaa aaa 2739

<210> 1862
 <211> 672
 <212> PRT
 <213> Ctenocephalides felis

<400> 1862
 Met His Asn Lys Ile Leu Val Leu Val Val Tyr His Val Val Leu Met
 1 5 10 15
 Phe Thr Met Val Val Ala Lys Thr Thr His Glu Asp Thr Asn Asp Asn
 20 25 30
 Ser Thr Asp Val Leu Leu Glu Leu Pro Lys Ser Met Asn Asn Asp Glu
 35 40 45
 Lys Leu Phe Leu Thr Thr Gly Gln Ile Leu Glu Gly Thr Thr Val Tyr
 50 55 60
 Ser Asp Glu Leu Ala Asp Phe Asn Ile Thr Glu Asn Thr Val Asn Val
 65 70 75 80
 Thr Ala Asp Lys Val Ala Leu Lys Glu Ile Thr Pro Asp His His His
 85 90 95
 Pro Val Val Thr Ser Thr Gln Lys Thr Ile Leu Asn Ala Ser Thr Thr
 100 105 110
 Val Glu Lys Asn Pro Gly His Gln Thr Ser Ile Ser Glu Glu Ser Thr
 115 120 125
 Thr Lys Leu Val Lys Thr Thr Thr Glu Asp Asn His Leu Gly Val Lys
 130 135 140
 Ser Leu Asn Glu Pro Gly Asp Glu Gln Glu Leu Lys Lys Pro Ser Ser
 145 150 155 160
 His Gly Lys Glu His Ile Ser Leu Pro Val Ala Ser Pro Val Pro Pro
 165 170 175

Val Ser His Ile Phe Gln Ala Thr Pro Gly Asp Leu Cys Pro Ala Phe
180 185 190

Asp Asp Ala Asp Arg Phe Thr Gln Thr Glu Leu Leu Ser Arg Leu Thr
195 200 205

Asn Asp Cys Arg Tyr Asp Lys Leu Glu Arg Pro Leu Gly Pro His Asn
210 215 220

Gly Ala Gly Pro Leu Pro Val Ala Ala Arg Ile Tyr Val Tyr Phe Ile
225 230 235 240

Gln Asn Thr Asp Ala His Glu Leu Ser Phe Ser Val Thr Val Leu Leu
245 250 255

Gln Phe Arg Tyr Gln Asp Ala Arg Leu Ala Tyr Lys Lys Val Ala Pro
260 265 270

Thr Arg Thr Val Ile Met Gly Glu Ser Gln Leu Arg Asp Lys Ile Trp
275 280 285

Val Pro His Val Phe Val Ala Asn Glu Arg Ser Ser Gln Val Met Gly
290 295 300

Thr Asp Ala Gln Ser Lys Asp Met Leu Val Ser Val Ala Pro Asp Gly
305 310 315 320

Thr Val Val Phe Ser Val Arg Met Lys Ala Thr Leu Tyr Cys Trp Met
325 330 335

Asn Leu Arg Lys Phe Pro Phe Asp Glu Gln Gln Cys Gln Met Met Leu
340 345 350

Glu Ser Trp Lys Tyr Asn Thr Ser Glu Leu Leu Leu Thr Trp Glu Pro
355 360 365

Thr Ala Pro Val Thr Leu Ala Pro Glu Leu His Leu Thr Glu Tyr Val
370 375 380

Leu Thr Asp Met Trp Val Asn Glu Thr Val Val Lys Ala Asp Leu Asp
385 390 395 400

Asp Leu Arg His Gly Ala Phe Gly Gly Thr Tyr Ser Ala Leu Ser Phe
405 410 415

Thr Ile Gln Ile Ser Arg Glu Met Gly Tyr Tyr Leu Met Asp Tyr Phe
420 425 430

Leu Pro Ser Val Met Ile Val Ser Cys Ser Trp Val Ser Phe Trp Leu
435 440 445

Ala Ala Asp Gln Ser Ala Pro Arg Val Thr Leu Gly Thr Ser Thr Met
450 455 460

Leu Ser Phe Ile Thr Leu Ala Ser Ala Gln Gly Lys Thr Leu Pro Lys
465 470 475 480

Val Ser Tyr Ile Lys Ala Ser Glu Ile Trp Phe Leu Gly Cys Thr Gly
485 490 495

Phe Ile Phe Gly Ser Leu Val Glu Phe Ala Phe Val Asn Thr Ile Trp
500 505 510

Arg Arg Arg Lys Asn Val Glu Leu Lys Lys Val Asn Ser Lys Tyr Ile
515 520 525

Leu Lys Ser Thr Leu Thr Pro Arg Leu Ala Arg Lys Glu Phe His Ala
530 535 540

Ser Phe Asn Ser Asn Pro Gly Gly Gly Asn Lys Asp Asp Gln Asp Leu
545 550 555 560

Gly Arg Gly Ile Arg Val Phe Pro Pro Pro Leu Val Lys Ala Arg Ser
565 570 575

Cys Ser Ser Leu Asp Arg Ser Asn Gly Ser Gly Asn Phe Leu Ser Val
580 585 590

His Gly Asn Asp His Lys Val Pro Thr Ile Thr Ala Gln Cys Ala Asp
595 600 605

Asp Ala Ala Ser Asp Gln Ile Ser Val Cys Val Asp Gly Glu Asn Glu
610 615 620

Glu Pro Ala Gln Ile Val His His Thr Trp Thr Thr Met Thr Pro Gln
625 630 635 640

Glu Ile Ser Met Trp Ile Asp Lys Arg Ser Arg Ile Cys Phe Pro Ile
645 650 655

Ala Phe Ala Ile Phe Asn Phe Phe Tyr Trp Ile Phe Val Tyr Tyr Leu
660 665 670

<210> 1863
 <211> 2739
 <212> DNA
 <213> Ctenocephalides felis

<400> 1863

```

tttttttttt tttttttttt tttttcagac cagctgagta tttattctaa aaatttaata 60
tttataatta taattataac tatgcagtaa aattaattat tcatataata attaataatt 120
aaaattaaaa tttccagtat cattatTTTT taatttaaaa tttcaatttt aattattaac 180
tattatatgt gaaataggaa tgactaaatt gtgtaagata tttcaatagc gattttcgag 240
tatactgagt cgctgtaggg tggttaagatg ttcgacaata ttataaattg ttttaatttta 300
tataaatttg tcaaataattg tattcatttt taacaaaccg ttcaaaagtt ataagtgata 360
tataatataa aatcattaat attgtctagt aagaatccta ttaataatgg aataatccaa 420
taagaatctc ttttgattct attcacgttt cctttaaatt ttacatatat ttatttttta 480
ttattttata aattttattaa ttattaaaac tataagtata ttaagtgtgt ttataaataa 540
taaacaaata tccaataaaa aaagttaaatt atagcaaaag ctatcgggaa acaaattctg 600
gaccttttgt caatccacat ggaaatttct tgaggtgtca tcgtcgtcca ggtgtggtga 660
acaatttgtg caggttcttc gttttcccca tcgacacaaa ctgaaatctg gtcacttgcg 720
gcatcgtctg cacattgtgc tgttattgtt ggaactttgt gatcatttcc atggacgctc 780
aaaaaattcc cggatccatt actcctatcc agactggaac aagacctagc cttgaccaa 840
ggcggcggaa agaccctaatt ccctcttccc aaatcctgat catccttatt accacctcca 900
ggattcgaat taaacgaagc atgaaactcc ttccgggcca acctcggcgt caaagttgac 960
ttcaaaatat acttgctgtt gacttttttc aattccacat ttttccttgc tctccaaatt 1020
gtgttgacaa acgcgaattc cactaaactc caaaaataa acccggtgca acctaaaaac 1080
cagatttctg aagctttgat gtacgatact ttgggttaaag tttttccttg ggcacttgct 1140
aaagtataa atgataacat ggtgcttgta cctaaggtga ctctgggtgc tgattggtct 1200
gctgccagcc aaaaacttac ccaggaacac gacacgatca ttactgatgg caaaaagtaa 1260
tccattaaat agtaacccat ttcacgactt atttgaatcg tgaaacttaa ggcactgtat 1320
gtcccaccaa atgctccgtg tctcaggtca tccaaatcag ccttgacaac tgtttcattt 1380
accacatgt cagtaaggac atattcggtc aaatgtagtt ctggtgctaa agttactggt 1440
gcagttggtt cccaagtcaa taggagttca cttgtattgt acttccaaact ttccaacatc 1500
atctgacact gttgttcata aaaaggaaat ttccttaaat tcatccaaca gtacaaagtt 1560
gccttcatcc tgaccgaaaa gacgactgta ccatcaggag ctactgacac caacatgtcc 1620
ttagattggg catctgtgcc cataacctgg gaagatctct cgttggcaac gaatacatgt 1680
ggtaccaga ttttgtccct gagctgcgat tcgcccatga tgaccgtcct ggtgggtgcc 1740
acttttttgt aggccaatct ggcgtcctgg taacgaaatt ggaggaggac ggtcacggaa 1800
aatgacaatt cgtgcgcgtc cgtattttgt ataaaataca cgtaaattct ggcgccacc 1860
gggagcggcc ctgcaccatt gtgaggcccc aaaggcgct ccagcttatc gtacctgcaa 1920
tcgtttgtca gcctggacaa aagttctgtc tgggtgaagc gatctgcac gtcgaaggct 1980
ggacaaaggt ctctggtgt agcctggaag atatgcgata ctggtggtac tgggtgaagcc 2040
actggtaaag aaatatgtct cttaccatgt gatgatggtt tttttaattc ttgttcatca 2100
ccaggttcat tcaggtctct tacacggagg tggttgtctt cagtggttgt ttttaccaat 2160
tttgtggtag attcttctga aatactggtt tgatgtccag gatttttttc aacggtcgtg 2220
gatgcgttta aaattgtttt ttgtgtagaa gtcactactg gatggtgatg gtcaggtgtg 2280
atttctttta gggctacttt gtcggctgtt acgtttactg tattttctgt tatattgaaa 2340
tctgccaatt cgtcactata tacagtagtc ctttccaaaa tttgaccagt tgtcaggaac 2400
aacttttcat cattgttcat cgatttgggc aactccagta agacgtctgt agaattatca 2460
ttggtgtctt catgtgtagt cttggcgact accatggtaa acatcaggac gacatggtaa 2520

```

0991936T660

aca	gtc	gtc	ttt	tcg	gtc	agg	atg	aag	gca	act	ttg	tac	tgt	tgg	atg	1008	
Thr	Val	Val	Phe	Ser	Val	Arg	Met	Lys	Ala	Thr	Leu	Tyr	Cys	Trp	Met		
			325						330						335		
aat	tta	agg	aaa	ttt	cct	ttt	gat	gaa	caa	cag	tgt	cag	atg	atg	ttg	1056	
Asn	Leu	Arg	Lys	Phe	Pro	Phe	Asp	Glu	Gln	Gln	Cys	Gln	Met	Met	Leu		
			340						345						350		
gaa	agt	tgg	aag	tac	aat	aca	agt	gaa	ctc	cta	ttg	act	tgg	gaa	cca	1104	
Glu	Ser	Trp	Lys	Tyr	Asn	Thr	Ser	Glu	Leu	Leu	Leu	Thr	Trp	Glu	Pro		
			355						360						365		
act	gca	cca	gta	act	tta	gca	cca	gaa	cta	cat	ttg	acc	gaa	tat	gtc	1152	
Thr	Ala	Pro	Val	Thr	Leu	Ala	Pro	Glu	Leu	His	Leu	Thr	Glu	Tyr	Val		
			370						375						380		
ctt	act	gac	atg	tgg	gta	aat	gaa	aca	gtt	gtc	aag	gct	gat	ttg	gat	1200	
Leu	Thr	Asp	Met	Trp	Val	Asn	Glu	Thr	Val	Val	Lys	Ala	Asp	Leu	Asp		
385						390						395			400		
gac	ctg	aga	cac	gga	gca	ttt	ggt	ggg	aca	tac	agt	gcc	tta	agt	ttc	1248	
Asp	Leu	Arg	His	Gly	Ala	Phe	Gly	Gly	Thr	Tyr	Ser	Ala	Leu	Ser	Phe		
			405						410						415		
acg	att	caa	ata	agt	cgt	gaa	atg	ggt	tac	tat	tta	atg	gat	tac	ttt	1296	
Thr	Ile	Gln	Ile	Ser	Arg	Glu	Met	Gly	Tyr	Tyr	Leu	Met	Asp	Tyr	Phe		
			420						425						430		
ttg	cca	tca	gta	atg	atc	gtg	tcg	tgt	tcc	tgg	gta	agt	ttt	tgg	ctg	1344	
Leu	Pro	Ser	Val	Met	Ile	Val	Ser	Cys	Ser	Trp	Val	Ser	Phe	Trp	Leu		
			435						440						445		
gca	gca	gac	caa	tca	gca	ccc	aga	gtc	acc	tta	ggt	aca	agc	acc	atg	1392	
Ala	Ala	Asp	Gln	Ser	Ala	Pro	Arg	Val	Thr	Leu	Gly	Thr	Ser	Thr	Met		
			450						455						460		
tta	tca	ttt	atc	act	tta	gca	agt	gcc	caa	gga	aaa	act	tta	ccc	aaa	1440	
Leu	Ser	Phe	Ile	Thr	Leu	Ala	Ser	Ala	Gln	Gly	Lys	Thr	Leu	Pro	Lys		
465						470						475			480		
gta	tcg	tac	atc	aaa	gct	tca	gaa	atc	tgg	ttt	tta	ggt	tgc	acc	ggg	1488	
Val	Ser	Tyr	Ile	Lys	Ala	Ser	Glu	Ile	Trp	Phe	Leu	Gly	Cys	Thr	Gly		
			485						490						495		
ttt	att	ttt	ggg	agt	tta	gtg	gaa	ttc	gcg	ttt	gtc	aac	aca	att	tgg	1536	
Phe	Ile	Phe	Gly	Ser	Leu	Val	Glu	Phe	Ala	Phe	Val	Asn	Thr	Ile	Trp		
			500						505						510		

aga cga agg aaa aat gtg gaa ttg aaa aaa gtc aac agc aag tat att	1584
Arg Arg Arg Lys Asn Val Glu Leu Lys Lys Val Asn Ser Lys Tyr Ile	
515 520 525	
ttg aag tca act ttg acg ccg agg ttg gcc cgg aag gag ttt cat gct	1632
Leu Lys Ser Thr Leu Thr Pro Arg Leu Ala Arg Lys Glu Phe His Ala	
530 535 540	
tcg ttt aat tcg aat cct gga ggt ggt aat aag gat gat cag gat ttg	1680
Ser Phe Asn Ser Asn Pro Gly Gly Gly Asn Lys Asp Asp Gln Asp Leu	
545 550 555 560	
gga aga ggg att agg gtc ttt ccg ccg cct ttg gtc aag gct agg tct	1728
Gly Arg Gly Ile Arg Val Phe Pro Pro Pro Leu Val Lys Ala Arg Ser	
565 570 575	
tgt tcc agt ctg gat agg agt aat gga tcc ggg aat ttt ttg agc gtc	1776
Cys Ser Ser Leu Asp Arg Ser Asn Gly Ser Gly Asn Phe Leu Ser Val	
580 585 590	
cat gga aat gat cac aaa gtt cca aca ata aca gca caa tgt gca gac	1824
His Gly Asn Asp His Lys Val Pro Thr Ile Thr Ala Gln Cys Ala Asp	
595 600 605	
gat gcc gca agt gac cag att tca gtt tgt gtc gat ggg gaa aac gaa	1872
Asp Ala Ala Ser Asp Gln Ile Ser Val Cys Val Asp Gly Glu Asn Glu	
610 615 620	
gaa cct gca caa att gtt cac cac acc tgg acg acg atg aca cct caa	1920
Glu Pro Ala Gln Ile Val His His Thr Trp Thr Thr Met Thr Pro Gln	
625 630 635 640	
gaa att tcc atg tgg att gac aaa agg tcc aga att tgt ttc ccg ata	1968
Glu Ile Ser Met Trp Ile Asp Lys Arg Ser Arg Ile Cys Phe Pro Ile	
645 650 655	
gct ttt gct ata ttt aac ttt ttt tat tgg ata ttt gtt tat tat tta	2016
Ala Phe Ala Ile Phe Asn Phe Phe Tyr Trp Ile Phe Val Tyr Tyr Leu	
660 665 670	

<210> 1865

<211> 672

<212> PRT

<213> Ctenocephalides felis

<400> 1865

Met His Asn Lys Ile Leu Val Leu Val Val Tyr His Val Val Leu Met

1	5	10	15
Phe Thr Met Val Val Ala Lys Thr Thr His Glu Asp Thr Asn Asp Asn	20	25	30
Ser Thr Asp Val Leu Leu Glu Leu Pro Lys Ser Met Asn Asn Asp Glu	35	40	45
Lys Leu Phe Leu Thr Thr Gly Gln Ile Leu Glu Gly Thr Thr Val Tyr	50	55	60
Ser Asp Glu Leu Ala Asp Phe Asn Ile Thr Glu Asn Thr Val Asn Val	65	70	75
Thr Ala Asp Lys Val Ala Leu Lys Glu Ile Thr Pro Asp His His His	85	90	95
Pro Val Val Thr Ser Thr Gln Lys Thr Ile Leu Asn Ala Ser Thr Thr	100	105	110
Val Glu Lys Asn Pro Gly His Gln Thr Ser Ile Ser Glu Glu Ser Thr	115	120	125
Thr Lys Leu Val Lys Thr Thr Thr Glu Asp Asn His Leu Gly Val Lys	130	135	140
Ser Leu Asn Glu Pro Gly Asp Glu Gln Glu Leu Lys Lys Pro Ser Ser	145	150	155
His Gly Lys Glu His Ile Ser Leu Pro Val Ala Ser Pro Val Pro Pro	165	170	175
Val Ser His Ile Phe Gln Ala Thr Pro Gly Asp Leu Cys Pro Ala Phe	180	185	190
Asp Asp Ala Asp Arg Phe Thr Gln Thr Glu Leu Leu Ser Arg Leu Thr	195	200	205
Asn Asp Cys Arg Tyr Asp Lys Leu Glu Arg Pro Leu Gly Pro His Asn	210	215	220
Gly Ala Gly Pro Leu Pro Val Ala Ala Arg Ile Tyr Val Tyr Phe Ile	225	230	235
Gln Asn Thr Asp Ala His Glu Leu Ser Phe Ser Val Thr Val Leu Leu	245	250	255
Gln Phe Arg Tyr Gln Asp Ala Arg Leu Ala Tyr Lys Lys Val Ala Pro			

260	265	270
Thr Arg Thr Val Ile Met Gly Glu Ser Gln Leu Arg Asp Lys Ile Trp 275 280 285		
Val Pro His Val Phe Val Ala Asn Glu Arg Ser Ser Gln Val Met Gly 290 295 300		
Thr Asp Ala Gln Ser Lys Asp Met Leu Val Ser Val Ala Pro Asp Gly 305 310 315 320		
Thr Val Val Phe Ser Val Arg Met Lys Ala Thr Leu Tyr Cys Trp Met 325 330 335		
Asn Leu Arg Lys Phe Pro Phe Asp Glu Gln Gln Cys Gln Met Met Leu 340 345 350		
Glu Ser Trp Lys Tyr Asn Thr Ser Glu Leu Leu Leu Thr Trp Glu Pro 355 360 365		
Thr Ala Pro Val Thr Leu Ala Pro Glu Leu His Leu Thr Glu Tyr Val 370 375 380		
Leu Thr Asp Met Trp Val Asn Glu Thr Val Val Lys Ala Asp Leu Asp 385 390 395 400		
Asp Leu Arg His Gly Ala Phe Gly Gly Thr Tyr Ser Ala Leu Ser Phe 405 410 415		
Thr Ile Gln Ile Ser Arg Glu Met Gly Tyr Tyr Leu Met Asp Tyr Phe 420 425 430		
Leu Pro Ser Val Met Ile Val Ser Cys Ser Trp Val Ser Phe Trp Leu 435 440 445		
Ala Ala Asp Gln Ser Ala Pro Arg Val Thr Leu Gly Thr Ser Thr Met 450 455 460		
Leu Ser Phe Ile Thr Leu Ala Ser Ala Gln Gly Lys Thr Leu Pro Lys 465 470 475 480		
Val Ser Tyr Ile Lys Ala Ser Glu Ile Trp Phe Leu Gly Cys Thr Gly 485 490 495		
Phe Ile Phe Gly Ser Leu Val Glu Phe Ala Phe Val Asn Thr Ile Trp 500 505 510		
Arg Arg Arg Lys Asn Val Glu Leu Lys Lys Val Asn Ser Lys Tyr Ile		

515	520	525
Leu Lys Ser Thr Leu Thr Pro Arg Leu Ala Arg Lys Glu Phe His Ala		
530	535	540
Ser Phe Asn Ser Asn Pro Gly Gly Gly Asn Lys Asp Asp Gln Asp Leu		
545	550	555
Gly Arg Gly Ile Arg Val Phe Pro Pro Pro Leu Val Lys Ala Arg Ser		
565	570	575
Cys Ser Ser Leu Asp Arg Ser Asn Gly Ser Gly Asn Phe Leu Ser Val		
580	585	590
His Gly Asn Asp His Lys Val Pro Thr Ile Thr Ala Gln Cys Ala Asp		
595	600	605
Asp Ala Ala Ser Asp Gln Ile Ser Val Cys Val Asp Gly Glu Asn Glu		
610	615	620
Glu Pro Ala Gln Ile Val His His Thr Trp Thr Thr Met Thr Pro Gln		
625	630	635
Glu Ile Ser Met Trp Ile Asp Lys Arg Ser Arg Ile Cys Phe Pro Ile		
645	650	655
Ala Phe Ala Ile Phe Asn Phe Phe Tyr Trp Ile Phe Val Tyr Tyr Leu		
660	665	670

<210> 1866

<211> 2016

<212> DNA

<213> Ctenocephalides felis

<400> 1866

```

atgcacaaca aaatcctggt cctggttggt taccatgtcg tcctgatggt taccatggta 60
gtcgccaaga ctacacatga agacaccaat gataattcta cagacgtctt actggagtg 120
cccaaatcga tgaacaatga tgaaaagttg ttctgacaa ctggtcaa at tttggaagg 180
actactgtat atagtgcga attggcagat ttcaatataa cagaaaatac agtaaacgta 240
acagccgaca aagtagccct aaaagaaatc acacctgacc atcaccatcc agtagtgact 300
tctacacaaa aaacaatttt aaacgcatcc acgaccgttg aaaaaaatcc tggacatcaa 360
accagtattt cagaagaatc taccacaaa ttggtaaaaa caaccactga agacaaccac 420
ctcgggtgtaa agagcctgaa tgaacctggt gatgaacaag aattaaaaaa accatcatca 480
catggtaagg agcatatttc ttaccagtg gcttcaccag taccaccagt atcgcatatc 540
ttccaggcta caccaggaga cctttgtcca gccttcgacg atgcagatcg cttcaccag 600
acagaacttt tgtccaggct gacaaacgat tgcaggtagc ataagctgga gcgccctttg 660

```


Thr Asn Thr Ser Ala Lys Thr Asp Ser Ile Thr Leu Leu Ser Lys Thr	
40 45 50	
agt cta ccg cct gat caa aat gcc acg att gaa aat cct gat cca gtg	248
Ser Leu Pro Pro Asp Gln Asn Ala Thr Ile Glu Asn Pro Asp Pro Val	
55 60 65	
ctt cct gaa aag ggc tcc gct gaa caa gaa caa cac agc tcg atg tct	296
Leu Pro Glu Lys Gly Ser Ala Glu Gln Glu Gln His Ser Ser Met Ser	
70 75 80	
ata ttc ttc gtg ctt tgt gtg ctg gct tta ggg att ctt tta att cat	344
Ile Phe Phe Val Leu Cys Val Leu Ala Leu Gly Ile Leu Leu Ile His	
85 90 95 100	
ttc atg tta caa aca ggg ttt cag tat tta cct gaa agt att gtt gta	392
Phe Met Leu Gln Thr Gly Phe Gln Tyr Leu Pro Glu Ser Ile Val Val	
105 110 115	
gtt ttc tta ggt gct tta atc ggc ttg ata att aat tta atg tcg tct	440
Val Phe Leu Gly Ala Leu Ile Gly Leu Ile Ile Asn Leu Met Ser Ser	
120 125 130	
aaa aat att gca aat tgg aag aat gaa gaa gcc ttt tca ccc aca gcg	488
Lys Asn Ile Ala Asn Trp Lys Asn Glu Glu Ala Phe Ser Pro Thr Ala	
135 140 145	
ttt ttc tta gtg ctt cta ccg cct ata ata ttt gaa tcc ggg tat aat	536
Phe Phe Leu Val Leu Leu Pro Pro Ile Ile Phe Glu Ser Gly Tyr Asn	
150 155 160	
ttg cat aaa ggt aat ttt ttt caa aat att ggt tcc atc ctg gtg ttt	584
Leu His Lys Gly Asn Phe Phe Gln Asn Ile Gly Ser Ile Leu Val Phe	
165 170 175 180	
gct ata ttt gga aca gcc ata tca gcc ttt gtt gtc ggt gct ggt gtg	632
Ala Ile Phe Gly Thr Ala Ile Ser Ala Phe Val Val Gly Ala Gly Val	
185 190 195	
tat tta cta gga atg gca gat gtt gct tat aac tta agc ttt gtt gaa	680
Tyr Leu Leu Gly Met Ala Asp Val Ala Tyr Asn Leu Ser Phe Val Glu	
200 205 210	
tcc ttt gct ttc ggt tca tta att tct gca gta gac cct gta gct acc	728
Ser Phe Ala Phe Gly Ser Leu Ile Ser Ala Val Asp Pro Val Ala Thr	
215 220 225	
gta gct att ttc cat gct tta gac gtg gac cca gtt tta aac atg ttg	776

ttttaattta tgttttaagt ttttaagataa gtgcagatatt gtcagtattt tttctacaag 1998
 ggtagaatac tgttgtatag ctaatgtgta aataaaaaagt aataaatttg atttattgca 2058
 ctctaaaaaa aaaaaaaaaa aa 2080

<210> 1868
 <211> 608
 <212> PRT
 <213> Ctenocephalides felis

<400> 1868
 Met Gly Val Lys Asn Ile Tyr Leu Tyr Cys Ile Leu Ile Cys Leu Leu
 1 5 10 15
 His Tyr Ala Ser Tyr Thr Lys Thr Glu Ser Ile Thr Asn Asn Ser Leu
 20 25 30
 Glu Glu Leu Tyr Thr Asn Thr Ser Ala Lys Thr Asp Ser Ile Thr Leu
 35 40 45
 Leu Ser Lys Thr Ser Leu Pro Pro Asp Gln Asn Ala Thr Ile Glu Asn
 50 55 60
 Pro Asp Pro Val Leu Pro Glu Lys Gly Ser Ala Glu Gln Glu Gln His
 65 70 75 80
 Ser Ser Met Ser Ile Phe Phe Val Leu Cys Val Leu Ala Leu Gly Ile
 85 90 95
 Leu Leu Ile His Phe Met Leu Gln Thr Gly Phe Gln Tyr Leu Pro Glu
 100 105 110
 Ser Ile Val Val Val Phe Leu Gly Ala Leu Ile Gly Leu Ile Ile Asn
 115 120 125
 Leu Met Ser Ser Lys Asn Ile Ala Asn Trp Lys Asn Glu Glu Ala Phe
 130 135 140
 Ser Pro Thr Ala Phe Phe Leu Val Leu Leu Pro Pro Ile Ile Phe Glu
 145 150 155 160
 Ser Gly Tyr Asn Leu His Lys Gly Asn Phe Phe Gln Asn Ile Gly Ser
 165 170 175
 Ile Leu Val Phe Ala Ile Phe Gly Thr Ala Ile Ser Ala Phe Val Val

435	440	445
Ile Ser Tyr Ala Leu Ser Leu His Leu Glu Phe Ser Asp Glu Thr Arg		
450	455	460
His Val Ile Ile Thr Thr Thr Leu Ile Ile Val Leu Cys Thr Thr Leu		
465	470	475
Ile Phe Gly Gly Ala Thr Met Pro Leu Leu Lys Phe Leu Gln Ala Asn		
485	490	495
Lys Lys Thr Arg Ser Ala Thr Arg Arg Thr Arg Arg Gln Gln Lys Ala		
500	505	510
Ile Thr Leu Ser Lys Thr Arg Glu Trp Gly Ser Ala Ile Asp Ser Glu		
515	520	525
Leu Leu Ser Glu Leu Thr Thr Glu Glu Glu Arg Asp Val Thr Phe Thr		
530	535	540
Gln Val Arg Arg Gly Leu Glu Phe Ile Arg Leu Asp His Lys Tyr Leu		
545	550	555
Arg Pro Phe Phe Thr Arg Arg Phe Thr His Gln Glu Leu Lys Asp Cys		
565	570	575
Lys Ser Gln Met Thr Asp Leu Thr Asn Lys Trp Tyr Gln Thr Ile Arg		
580	585	590
Val Ser Pro Gln Met Ser Asp Asp Asp Asp Val Ser Thr Cys Ser Thr		
595	600	605

<210> 1869
 <211> 2080
 <212> DNA
 <213> Ctenocephalides felis

<400> 1869
 tttttttttt ttttttttag agtgcaataa atcaaattta ttacttttta tttacacatt 60
 agctatacaa cagtattcta cccttgtaga aaaaatactg acaaatctgc acttatctta 120
 aaacttaaaa cataaattaa aatacaggta actctgttat atatatcaca taacaatttt 180
 ggtcaattag cattaaattt aaatttaaat taagtactgc acgtactaac gtcacatca 240
 tcaactcatct gaggactcac tcttatagtt tgataccatt tattcgtaag atccgtcatt 300
 tgacttttgc aatccttcaa ttcctgggtg gtgaatcttc gagtgaataa cgggtctcaag 360
 tatttggtgt ccagtcgtat gaattctagg cctcgtctta cttgggtgaa tgtgacgtca 420
 cgttcttctt cgggttgtaa ttcacttagt agttctgaat cgattgctga tccccattct 480

cggtttttgc ttaatgttat tgctttttgc tgacgtcttg tacgtcttgt ggctgaacgg 540
gtcttcttgt tcgcctgcaa aaatttcagc aaaggcatcg tagcaccccc gaatataagt 600
gttgtgcaaa gtacaattat aagtgtcggt gtaattatta catgacgtgt ttcacagaaa 660
aattctaaat gtaaggaaa tgcatatgat atggcacctc gcaaaccact gaaccacatg 720
ataaatgcca tcttttttagt gattttgtgc tccctaaatt gattcacaag ccaggataaa 780
ggaaatatat ttgcagctct tccaattaag caaagtacaa tgctccaaat aactaaggca 840
ggttccactc tgtgacgaaa actaaatata gccattccta aataagcaaa cacacaagtt 900
tctgcaataa aagccaaaagt tctcatcgtc tgctgcatag ttatttgtgt aaccgttgat 960
aaattgaaat gtgtgtaatg ggacatcaca atgccacaga ataatatcgc cattatacct 1020
gataaatgaa ttcctttctgc caaaacataa ggtgcataag taaacaccaa catcatacct 1080
aactctaagg acggatactt tctaagatca acatgtttca acaaaagagc actaattaag 1140
gcaaagacta caccgatacc agccgaagca aagaacatta acaaaaacct atttaaaccg 1200
gagactacag cttcagcagt cgctattaaa ggattgttgg attccaaaac tgcagttgtt 1260
aaaacaattg aaatagcatc atttaaaata ctttctccga acaccaacat gtttaaaact 1320
gggtccacgt ctaaagcatg gaaaatagct acggtagcta cagggtctac tgcagaaatt 1380
aatgaaccga aagcaaagga ttcaacaaaag cttaagttat aagcaacatc tgccattcct 1440
agtaaataca caccagcacc gacaacaaaag gctgatattg ctgttccaaa tatagcaaac 1500
accaggatgg aaccaatatt ttgaaaaaaa ttacctttat gcaaattata cccggattca 1560
aatattatag gcggtagaag cactaagaaa aacgctgtgg gtgaaaaggc ttcttcattc 1620
ttccaatttg caatattttt agacgacatt aaattaatta tcaagccgat taaagcacct 1680
aagaaaacta caacaatact ttcaggtaaa tactgaaacc ctgtttgtta catgaaatga 1740
attaaaagaa tccctaaagc cagcacacaa agcacgaaga atatagacat cgagctgtgt 1800
tggtcttgtt cagcggagcc cttttcagga agcaactgat caggattttc aatcgtggca 1860
ttttgatcag gcggtagact ggtttttgat aaaagagtaa tggaatctgt tttggcagaa 1920
gtgtttgtgt acaattcttc caaagaattg ttgtaatatg attcagtttt ggtataagat 1980
gcataatgta gcaggcatat cagaatgcag tataaatata tatttttaac gccattttt 2040
taacactttt gtattttgaa aataattgtt gcatcacttt 2080

<210> 1870

<211> 1824

<212> DNA

<213> Ctenocephalides felis

<400> 1870

atgggcttta aaaatatata tttatactgc attctgatat gcctgctaca ttatgcatct 60
tataccaaaa ctgaatctat taccaacaat tctttggaag aattgtacac aaacacttct 120
gccaaaacag attccattac tcttttatca aaaaccagtc taccgcctga tcaaaatgcc 180
acgattgaaa atcctgatcc agtgcttcct gaaaagggtc ccgctgaaca agaacaacac 240
agctcgatgt ctatattctt cgtgctttgt gtgctggctt tagggattct ttttaattcat 300
ttcatgttac aaacagggtt tcagtattta cctgaaagta ttgttgtagt tttcttaggt 360
gctttaatcg gcttgataat taatttaatg tcgtotaaaa atattgcaaa ttggaagaat 420
gaagaagcct tttcaccac agcgtttttc ttagtgcttc taccgcctat aatatttgaa 480
tccgggtata atttgcataa aggtaatttt tttcaaaata ttggttccat cctgggtgtt 540
gctatatttg gaacagccat atcagccttt gttgtcgggt ctggtgtgta tttactagga 600
atggcagatg ttgcttataa cttaagcttt gttgaatcct ttgctttcgg ttcattaatt 660
tctgcagtag accctgtagc taccgtagct attttccatg ctttagacgt ggaccagtt 720
ttaaacatgt tgggtgttcg agaaagtatt ttaaatgatg ctatttcaat tgttttaaca 780


```

actgcagttt  tggaaatccaa  caatccttta  atgacgactg  ctgaagctgt  agtctccggt  840
ttaaataaggt  tttgtttaat  gttctttgct  tcggctggta  tcggtgtagt  ctttgcccta  900
attagtgtct  ttttggtgaa  acatgttgat  cttagaaaagt  atccgtccctt  agagttaggt  960
atgatgttgg  tgtttactta  tgcaccttat  gttttggcag  aaggaattca  tttatcaggt  1020
ataatggcga  tattattctg  tggcattgtg  atgtcccatt  acacacattt  caatttatca  1080
acggttacac  aaataactat  gcagcagacg  atgagaactt  tggcttttat  tgcagaaact  1140
tgtgtgtttg  cttatttagg  aatggctata  tttagttttc  gtcacagagt  ggaacctgcc  1200
ttagtatttt  ggagcattgt  actttgctta  attggaagag  ctgcaaatat  atttccttta  1260
tcctggcttg  tgaatcaatt  tagggagcac  aaaatcacta  aaaagatggc  atttatcatg  1320
tggttcagtg  gtttgcgagg  tgccatatca  tatgcacttt  ccttacattt  agaattttct  1380
gatgaaacac  gtcatgtaat  aattacaacg  acacttataa  ttgtactttg  cacaacactt  1440
atattcgggg  gtgctacgat  gcctttgctg  aaatttttgc  aggcgaacaa  gaagaccggt  1500
tcagccacaa  gacgtacaag  acgtcagcaa  aaagcaataa  cattaagcaa  aacccgagaa  1560
tggggatcag  caatcgattc  agaactacta  agtgaattaa  caaccgaaga  agaacgtgac  1620
gtcacattca  cccaagtaag  acgaggccta  gaattcatac  gactggacca  caaatacttg  1680
agaccgtttt  tcaactgaag  attcaccac  caggaattga  aggattgcaa  aagtcaaagt  1740
acggatctta  ogaataaatg  gtatcaaact  ataagagtga  gtcctcagat  gagtgatgat  1800
gatgacgtta  gtacgtgcag  tact                                     1824

```

<210> 1871

<211> 1824

<212> DNA

<213> Ctenocephalides felis

<400> 1871

```

agtactgcac  gtactaacgt  catcatcatc  actcatctga  ggactcactc  ttatagtttg  60
ataccattta  ttcgtaagat  ccgtcatttg  acttttgcaa  tccttcaatt  cctgggtggg  120
gaatcttcga  gtgaaaaacg  gtctcaagta  tttgtgggtc  agtcgtatga  attctaggcc  180
tcgtcttact  tgggtgaatg  tgacgtcacg  ttcttcttcg  gttgttaatt  cacttagtag  240
ttctgaatcg  attgctgac  cccattctcg  ggttttgctt  aatgttattg  ctttttgctg  300
acgtcttgta  cgtcttggtg  ctgaacgggt  cttcttggtc  gcctgcaaaa  atttcagcaa  360
aggcatcgta  gcacccccga  atataagtgt  tgtgcaaagt  acaattataa  gtgtcgttgt  420
aattattaca  tgacgtgttt  catcagaaaa  ttctaaatgt  aaggaaagtg  catatgatat  480
ggcacctcgc  aaaccactga  accacatgat  aaatgccatc  tttttagtga  ttttgtgctc  540
cctaaattga  ttcacaagcc  aggataaagg  aaatatattt  gcagctcttc  caattaagca  600
aagtacaatg  ctccaaataa  ctaaggcagg  ttccactctg  tgacgaaaac  taaatatagc  660
cattcctaaa  taagcaaaca  cacaagtttc  tgcaataaaa  gccaaagttc  tcatcgtctg  720
ctgcatagtt  atttgtgtaa  ccgttgataa  attgaaatgt  gtgtaatggg  acatcacaat  780
gccacagaat  aatatcgcca  ttatacctga  taaatgaatt  ccttctgcca  aaacataagg  840
tgcataagta  aacaccaaca  tcatacctaa  ctctaaggac  ggatactttc  taagatcaac  900
atgtttcaac  aaaagagcac  taattaaggc  aaagactaca  ccgataccag  ccgaagcaaa  960
gaacattaaa  caaaacctat  ttaaaccgga  gactacagct  tcagcagtcg  tcattaaagg  1020
attgttggat  tccaaaactg  cagttgttaa  aacaattgaa  atagcatcat  ttaaaatact  1080
ttctccgaac  accaaccatg  ttaaaactgg  gtccacgtct  aaagcatgga  aaatagctac  1140
ggtagctaca  ggggtctactg  cagaaattaa  tgaaccgaaa  gcaaaggatt  caacaaagct  1200
taagttataa  gcaacatctg  ccattcctag  taaatacaca  ccagcaccga  caacaaaggc  1260
tgatatggct  gttccaaata  tagcaaacac  caggatggaa  ccaatatattt  gaaaaaaatt  1320

```


ataacgtact ataatatatt tcgcaattgc aattggcata tcgttcaata ttaatatattac 1115
 aaagctgccca gtgatacgtc aatcatatatt ttgaacatat tttatcttat gtttcagtaa 1175
 ttctgtaaga attttttagat gottatgtat aaattgggtga tatagcataa ataacatata 1235
 cgaatttgta tatttttgaag tactatctgt gttaaactatc caaaactaac attcaaaatt 1295
 tgttttttga aaaaaattat cttacaatat gtgtactata atataatgta tttagtatta 1355
 aatgtttgag aaactaatat agttaagttg tatacaataa attataatcg tgttatatta 1415
 tgtttatatt tacaaaatttt cgtgatggag tttaatgtta gatgaatata ttaaaatgta 1475
 tgttctaaca attgtaatat taatgttaat ttttaaccgta aattaaggaa aacattgttt 1535
 tgatgactac ttagcttccg atccagaggt gatttagaca tttagtttagc attttaaaat 1595
 attgtgtagc taacatttcg tgtgattttg acaactaatc agttatttaa gaaatgtgca 1655
 tataattatt atatacatat tattttacat acctgttttag tattcaaaaa acttgtcaat 1715
 tacttcgcac aaaagaacat tgtgagtata ataatatcat attatgcaaa cattctttat 1775
 ttacgtgtag tttacttgaa gtatcttggg tttctttgct ttttttcatt tgattcagta 1835
 aaattaattc aaatctaaca gtattttgca tagcagttat acgaaaatta accagtgtt 1895
 aacaatattt aaaatattta tataattcat taactagtta tagtaaaaaa atatataaat 1955
 tcatttttaa ttaaaagaca taatatattt tacatattgt ttaaattcttg tactttgccca 2015
 ttttctctgt ttgtttcatg taatcttcgg aagcgtagca aatgttgtgt atattagtaa 2075
 tgtacagttg tataaaacat aaattgtaag tccacttaca ggcacatgct attgtcttat 2135
 tgaatttatt tgttctacca ggaaagtgtt ttatagattt tactaaatat atattaagaa 2195
 aagcgttctc tgttgaattg taattaatcc nttttgtaag atttacngca agtatgaaga 2255
 aatgttaaat tttgttaaat ttcatgtatt gtatatgata ttcgcacgta cttatgaaat 2315
 gtatgncagt caaatgtga atttntttta atanacnato tttgnantac ctaaaaaaaa 2375
 aaaaaaaaa 2383

His Tyr Lys Leu Gln Gln Gln Arg Ile Ser Asn Asn Gln Met Met Lys
225 230 235 240

Met Lys Lys His Glu Glu Leu Glu Thr Pro Thr Phe Thr Thr Ser Ile
245 250 255

Pro Val Asp Val Ser Gly
260

<210> 1874

<211> 2383

<212> DNA

<213> Ctenocephalides felis

<400> 1874

```

tttttttttt ttttttaggt antncaaaga tngtntatta aaanaaatc agcatttgac 60
tgncatacat ttcataagta cgtgcgaata tcatatacaa tacatgaaat ttaacaaaat 120
ttaacatttc ttcataactg cngtaaactc tacaaaangg attaattaca attcaacaga 180
gaacgctttt cttaatatat atttagtaaa atctataaag cactttcctg gtagaacaaa 240
taaattcaat aagacaatag catgtgcctg taagtggact tacaatttat gttttatata 300
actgtacatt actaatatac acaacatttg ctacgcttcc gaagattaca tgaacaaaac 360
agagaaaatg gcaaagtaca agatttaaac aatatgtaaa atatattatg tcttttaatt 420
taaaatgaat ttatatattt ttttactata actagttaat gaattatata aatattttta 480
atattgttaa gcaactggta attttcgtat aactgctatg caaaatactg ttagatttga 540
attaatttta ctgaatcaaa tgaaaaaaag caaagaaaac caagatactt caagtaaact 600
acacgtaaat aaagaatggt tgcataatat gatattatta tactcacaat gttcttttgt 660
gcgaagtaat tgacaagttt tttgaatact aaacaggatg gtaaaataat atgtatataa 720
taattatatg cacatttcctt aaataactga ttagttgtca aaatcacacg aaatgttagc 780
tacacaatat tttaaaatgc taactaaatg tctaaatcac ctctggatcg gaagctaagt 840
agtcacataa acaatgtttt ccttaattta cggttaaaat taacattaat attacaattg 900
ttagaacata cattttaata tattcatcta acattaaact ccatcacgaa aatttgtaaa 960
tataaacata atataacacg attataattt attgtatata acttaactaa attagtttct 1020
caaacattta atactaaata cattatatta tagtacacat attgtaagat aatttttttc 1080
aaaaaacaaa ttttgaatgt tagttttgga tagtttacac agatagtact tcaaaatata 1140
caaattcgta tatgttattt atgctatata accaatttat acataagcat ctaaaaattc 1200
ttacagaatt actgaaacat aagataaaat atgttcaaaa atatgattga cgtatcactg 1260
gcagctttgt aatattaata ttgaacgata tgccaattgc aattgcgaaa tatattatag 1320
tacgttataa ttataatgaa actcttggtg tattaagcaa agaaaagatt cctaactgat 1380
ggcatttgta aaaatggtaa tcgaactttg gatacatcat aacgcttact aatcgtattt 1440
taatatgaat aatttatatt gaacggtaac atatacagat aatcatgttt agtattatcc 1500
aaattactaa ttttgtttta aatacttctt tcctatcagc ctgaaacgtc gactggaatc 1560
gatgtggtga acgttggcgt ttctagctcc tcgtgcttct tcattttcat catctgggta 1620
ttgctgatcc tctgctgttg cagtttatag tggttgatga tatcttggtc ggctgggcac 1680
gactgggtga atgcgtccaa ctggtacatg tgatacatat aacgccataa ggcggttaga 1740
ttgctcgtaa tttcaaattc gacgaaatag ttggcggcga ccctgatgtg ttgtaacctg 1800
ggcatcagtt cgagtcgaa gcagcacatg gtgtcgcccc ttaggaatct cgtgccgcgc 1860

```

```

cgcgcctaaat ggtcgttgat tttcctcagg tggtcagca gactattgct ttttacgtca 1920
tcctttttga ctaaaaccaa cttcaattta gagtacaaat tctcgatgag tgttgccact 1980
tctttatcct gaacaaaaag attgtgtcct ccagggacac tcttcacgat gtgacgttcg 2040
attttgtcgt tttctagcac ggccaggcca ttgtcgatta gaattggcgg cggcgctcgt 2100
tcaaaatttg tacggaaatc cgggtggagg ttttgcacgt ctactgttgt aacottttaa 2160
ctgatagttt taagttctgc tagcaggtag aaatccataa aatattcttg acaaaataaa 2220
caagctcctt tacgtcgacc atctatggtg gatgccttaa tgataagttc aatttctggc 2280
acttcaccat taatagttcc gttttcttgc atttcatctg acatgttgca ctttttatta 2340
tatgaacggt tcaaatatgt tttttattct acacacaaga att 2383

```

<210> 1875

<211> 786

<212> DNA

<213> *Ctenocephalides felis*

<400> 1875

```

atgtcagatg aaatgcaaga aaacggaact attaatggtg aagtgccaga aattgaactt 60
atcattaagg catccacat agatggtcga cgtaaaggag cttgtttatt ttgtcaagaa 120
tattttatgg atttgtacct gctagcagaa cttaaaacta tcagttttaa ggttacaaca 180
gtagacatgc aaaaacctcc accggatttc cgtacaaatt ttgaagcgac gccgccgcca 240
attctaatac acaatggcct ggccgtgcta gaaaacgaca aaatcgaacg tcacatcatg 300
aagagtgtcc ctggaggaca caatcttttt gttaggata aagaagtggc aacactcatc 360
gagaatttgt actctaaatt gaagttggtt ttagtcaaaa aggatgacgt aaaaagcaat 420
agtctgctga gccacctgag gaaaatcaac gaccatttgg cgcggcgcg cagagatttc 480
ctaaccggcg acaccatgtg ctgcttcgac tgcgaactga tgcccagggt acaacacatc 540
agggtcgccc ccaagtattt cgtcgaattt gaaattccga gcaatctaac cgccttatgg 600
cgttatatgt atcacatgta ccagttggac gcattcacc agtcgtgcc agccgaccaa 660
gatatcatca accactataa actgcaacag cagaggatca gcaataacca gatgatgaaa 720
atgaagaagc acgaggagct agaaaacgca acgttcacca catcgattcc agtcgacggt 780
tcaggc 786

```

<210> 1876

<211> 786

<212> DNA

<213> *Ctenocephalides felis*

<400> 1876

```

gcctgaaacg tcgactggaa tcgatgtggt gaacgttggc gtttctagct cctcgtgctt 60
cttcattttc atcatctggt tattgctgat cctctgctgt tgcagtttat agtgggtgat 120
gatattcttg tcggctgggc acgactgggt gaatgcgtcc aactggtaaa tgtgatacat 180
ataacgccat aaggcgggta gattgctcgg aatttcaaata tcgacgaaat acttggcggc 240
gaccctgatg tgttgtaacc tgggcatcag ttgcgagtcg aagcagcaca tgggtgctgcc 300
cgtaggaat ctcgtgccgc gccgcgcca atggctggtt attttcctca ggtggctcag 360
cagactattg ctttttacgt catccttttt gactaaaacc aacttcaatt tagagtacaa 420
attctcgatg agtgttgcca cttctttatc ctgaacaaaa agattgtgtc ctccagggac 480
actcttcacg atgtgacggt cgattttgtc gttttctagc acggccaggc cattgtcgat 540

```


atcgagaaag attacggtgt gtcagaggat cttgttaaca aatattgtta tataacaaag 1200
 ttcaatcttt aattattatt tagaagaatt tgaaaatgta tattaatgt tttttaataa 1260
 aatagtttat tggcaatttn aaaaaaaaaa a 1291

<210> 1879

<211> 1291

<212> DNA

<213> Ctenocephalides felis

<400> 1879

tttttttttt tnaaattgcc aataaactat tttattaaaa aacattaaat atacattttc 60
 aaattcttct aaataataat taaagattga actttgttat ataacaatat ttgttaacaa 120
 gatcctctga cacaccgtaa tctttctcga tcaaaatacg cccctttatt gcacgtaaaa 180
 tgttcagggt cttttccaat cgtgacgcat gaataatact tgcggcaatc gtttgatct 240
 tgcaccaaag gtcctacttc atcgcaaagc tctggaagct caggaagagg aatttctgtg 300
 ctattttcgc aatttccttt cacgcatttt aatttgactg tattgaaata agcaccttta 360
 ttacaattaa aatgtttcgg taatgatcca atttctagac atgtgtaata tgcgtgacaa 420
 tgcgtgtgat cttgcatcag cggaccttgt tgtttgcatg gtatttcttg cgggtggttt 480
 gttgcgggag tttccgtaga agtaggcttt gtggaagggt cgggttggtgt tgtggcagac 540
 gtcgtggttg tttcaccaga cgtggaagat tgcgttggtg ttgtggcaga cgtcgtggtt 600
 gtttcactag acgtggaaga ttcggttggt gttgtggcag acgtcgtggt tgtttcacta 660
 gacgtggaag attcgtttgg tgttgtggca gacgtcgtgg ttgtttcact agacgtggaa 720
 gattcgtttg gtgttgtggc agacgtcgtg gttgtttcac tagacgtgga agattcgttt 780
 gatgttgttg cagacgtcgt ggttgtttca ctagacgtgg aagattcgtt tggcgttgtg 840
 gcaggcgtcg tgggtggttt atctcttacg caaactctct gcactgcatc atatatctca 900
 ctctcatcac accgatataa taaaggatat aatattttgt tgctattgaa ccacaagggt 960
 ttttcggtgc acctataata tatatttcta ttgctcgcc aagcattttc atctcctata 1020
 gtatcacaat gaaattgtaa gcgtttacac gattgatgat tcatgttcag gctacaatta 1080
 ttttctataa cattataagc cttgtaacct ccacactcga caggcttaga tgattcattt 1140
 gcagttttac attcatgata acgtgacaa tcatacggat caggaaaaac tcctggaccg 1200
 gtgcaagtta tagaaccttc cgagaaacat gggcttggat ctgcagaaca ccaccggcg 1260
 gccgcttttag ccctatagtg ggcagctaatt c 1291

<210> 1880

<211> 279

<212> DNA

<213> Ctenocephalides felis

<400> 1880

caatgatcaa gtcagttata attgtggcca acttttggtt attcgtagcc ttgcaatcga 60
 ttgataatcg gcagactaac aactgctctg agattggtgt tgatggtttt tttgtctca 120
 actgcagcgt cacagctttt tgtggtagag gacctacggg tgaattcaac accgtgtota 180
 caagtccatg tagttctggt gaagtgttga gtacctgggc gggtagatgt tctgcagatc 240
 caagcccatg tttctcggaa ggttctataa cttgcaccg 279

Val Phe Pro Asp Pro Tyr Asp Cys Gln Arg Tyr His Glu Cys Lys Thr	
100 105 110	
gca aat gaa tca tct aag cct gtc gag tgt ggg ggt tac aag gct tat	383
Ala Asn Glu Ser Ser Lys Pro Val Glu Cys Gly Gly Tyr Lys Ala Tyr	
115 120 125	
aat gtt ata gaa aat aat tgt agc ctg aac atg aat cat caa tct tgt	431
Asn Val Ile Glu Asn Asn Cys Ser Leu Asn Met Asn His Gln Ser Cys	
130 135 140	
aaa cgc tta caa ttt cat tgt gat act ata gga gat gaa aat gct tgg	479
Lys Arg Leu Gln Phe His Cys Asp Thr Ile Gly Asp Glu Asn Ala Trp	
145 150 155	
ccg agc aat aga aat ata tat tat agg tgc acc gaa aaa acc ttg tgg	527
Pro Ser Asn Arg Asn Ile Tyr Tyr Arg Cys Thr Glu Lys Thr Leu Trp	
160 165 170 175	
ttc aat agc aac aaa ata tta tat cct tta tta tat cgg tgt gat gag	575
Phe Asn Ser Asn Lys Ile Leu Tyr Pro Leu Leu Tyr Arg Cys Asp Glu	
180 185 190	
agt gag ata tat gat gca gtg cag aga gtt tgc gta aga gat gaa acc	623
Ser Glu Ile Tyr Asp Ala Val Gln Arg Val Cys Val Arg Asp Glu Thr	
195 200 205	
acc acg acg cct gcc aca acg cca acc gaa tct tcc acg tct agt gaa	671
Thr Thr Thr Pro Ala Thr Thr Pro Thr Glu Ser Ser Thr Ser Ser Glu	
210 215 220	
aca acc acg acg tct gcc aca aca tca acc gaa tct tcc acg tct agt	719
Thr Thr Thr Thr Ser Ala Thr Thr Ser Thr Glu Ser Ser Thr Ser Ser	
225 230 235	
gaa aca acc acg acg tct gcc aca aca cca acc gaa tct tcc acg tct	767
Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser Thr Ser	
240 245 250 255	
agt gaa aca acc acg acg tct gcc aca aca cca acc gaa tct tcc acg	815
Ser Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser Thr	
260 265 270	
tct agt gaa aca acc acg acg tct gcc aca aca cca acc gaa tct tcc	863
Ser Ser Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser	
275 280 285	
acg tct agt gaa aca acc acg acg tct gcc aca aca cca acc gaa tct	911

Thr Ser Ser Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser
 290 295 300

tcc acg tct ggt gaa aca acc acg acg tct gcc aca aca cca acc gaa 959
 Ser Thr Ser Gly Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu
 305 310 315

cct tcc aca aag cct act tct acg gaa act ccc gca aca aaa cca ccg 1007
 Pro Ser Thr Lys Pro Thr Ser Thr Glu Thr Pro Ala Thr Lys Pro Pro
 320 325 330 335

caa gaa ata cca tgc aaa caa caa ggt ccg ctg atg caa gat cca cac 1055
 Gln Glu Ile Pro Cys Lys Gln Gln Gly Pro Leu Met Gln Asp Pro His
 340 345 350

gat tgt cac gca tat tac aca tgt cta gaa att gga tca tta ccg aaa 1103
 Asp Cys His Ala Tyr Tyr Thr Cys Leu Glu Ile Gly Ser Leu Pro Lys
 355 360 365

cat ttt aat tgt aat aaa ggt gct tat ttc aat aca gtc aaa tta aaa 1151
 His Phe Asn Cys Asn Lys Gly Ala Tyr Phe Asn Thr Val Lys Leu Lys
 370 375 380

tgc gtg aaa gga aat tgc gaa aat agc aca gaa att cct ctt cct gag 1199
 Cys Val Lys Gly Asn Cys Glu Asn Ser Thr Glu Ile Pro Leu Pro Glu
 385 390 395

ctt cca gac att tgc gat gaa gta gga cct ttg gtg caa gat cca aac 1247
 Leu Pro Asp Ile Cys Asp Glu Val Gly Pro Leu Val Gln Asp Pro Asn
 400 405 410 415

gat tgc cgc aag tat tat tca tgc gtc acg att gga aaa gaa cct gaa 1295
 Asp Cys Arg Lys Tyr Tyr Ser Cys Val Thr Ile Gly Lys Glu Pro Glu
 420 425 430

cat ttt acg tgc aat aaa ggg gcg tat ttt gat cga gaa aga tta cgg 1343
 His Phe Thr Cys Asn Lys Gly Ala Tyr Phe Asp Arg Glu Arg Leu Arg
 435 440 445

tgt gtc aga gga tct tgt taacaaatat tggtatataa caaagttcaa 1391
 Cys Val Arg Gly Ser Cys
 450

tctttaatta ttatttagaa gaatttgaaa atgtatattt aatgtttttt aataaaatag 1451

tttattggca atttnaaaaa aaaaaa 1477

Thr Thr Thr Ser Ala Thr Thr Ser Thr Glu Ser Ser Thr Ser Ser Glu
225 230 235 240

Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser Thr Ser Ser
245 250 255

Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser Thr Ser
260 265 270

Ser Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser Thr
275 280 285

Ser Ser Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Ser Ser
290 295 300

Thr Ser Gly Glu Thr Thr Thr Thr Ser Ala Thr Thr Pro Thr Glu Pro
305 310 315 320

Ser Thr Lys Pro Thr Ser Thr Glu Thr Pro Ala Thr Lys Pro Pro Gln
325 330 335

Glu Ile Pro Cys Lys Gln Gln Gly Pro Leu Met Gln Asp Pro His Asp
340 345 350

Cys His Ala Tyr Tyr Thr Cys Leu Glu Ile Gly Ser Leu Pro Lys His
355 360 365

Phe Asn Cys Asn Lys Gly Ala Tyr Phe Asn Thr Val Lys Leu Lys Cys
370 375 380

Val Lys Gly Asn Cys Glu Asn Ser Thr Glu Ile Pro Leu Pro Glu Leu
385 390 395 400

Pro Asp Ile Cys Asp Glu Val Gly Pro Leu Val Gln Asp Pro Asn Asp
405 410 415

Cys Arg Lys Tyr Tyr Ser Cys Val Thr Ile Gly Lys Glu Pro Glu His
420 425 430

Phe Thr Cys Asn Lys Gly Ala Tyr Phe Asp Arg Glu Arg Leu Arg Cys
435 440 445

Val Arg Gly Ser Cys
450

<210> 1884

<211> 1477
<212> DNA
<213> Ctenocephalides felis

<400> 1884
 tttttttttt tnaaattgcc aataaactat tttattaaaa aacattaaat atacattttc 60
 aaattcttct aaataataat taaagattga actttgttat ataacaatat ttgttaacaa 120
 gatcctctga cacaccgtaa tctttctcga tcaaaatacg cccctttatt gcacgtaaaa 180
 tgttcagggt cttttccaat cgtgacgcat gaataatact tgcggcaatc gtttgatct 240
 tgcacaaaag gtcctacttc atcgcaaatg tctggaagct caggaagagg aatttctgtg 300
 ctattttcgc aatttccttt cacgcatttt aatttgactg tattgaaata agcaccttta 360
 ttacaattaa aatgtttcgg taatgatcca atttctagac atgtgtaata tgcgtgacaa 420
 tgcgtgtgat cttgcatcag cggacctgtg tgtttgcatg gtatttcttg cgttggtttt 480
 gttgcgggag tttccgtaga agtaggcttt gtggaagggt cggttggtgt tgtggcagac 540
 gtcgtgggtt tttaccaga cgtggaagat tgcgttggtg ttgtggcaga cgtcgtgggt 600
 gtttcactag acgtggaaga ttcggttggt gttgtggcag acgtcgtggt tgtttacta 660
 gacgtggaag attcgggttg tgtgtgggca gacgtcgtg ttgtttcact agacgtggaa 720
 gattcgggtt gtgttgtggc agacgtcgtg gttgtttcac tagacgtgga agattcgggt 780
 gatgttgttg cagacgtcgt ggttgtttca ctacacgtgg aagattcgggt tggcgttgtg 840
 gcaggcgtcg tgggtggttt atctcttacg caaactctct gcaactgcac atatatctca 900
 ctctcatcac accgatataa taaaggatat aatattttgt tgctattgaa ccacaagggt 960
 ttttcggtgc acctataata tatatttcta ttgctcggcc aagcattttc atctcctata 1020
 gtatcacaat gaaattgtaa gcgtttacac gattgatgat tcatgttcag gctacaatta 1080
 tttctataaa cattataagc cttgtaacct ccacactcga caggcttaga tgattcattt 1140
 gcagttttac attcatgata acgctgacaa tcatacggat caggaaaaac tcctggaccg 1200
 gtgcaagtta tagaaccttc cgagaaacat gggcttggt ctgcagaaca tctaccgcc 1260
 cagggtactgc aaacttcacc agaactacat ggactttag acacgggtgt gaattcacc 1320
 gtaggtcctc taccacaaaa agctgtgacg ctgcagttga gacaaaaaaa accatcaaca 1380
 ccaatctcag agcagttgtt agtctgccga ttatcaatcg attgcaaggc tacgaatagc 1440
 caaaagttgg ccacaattat aactgacttg atcattg 1477

<210> 1885
<211> 1359
<212> DNA
<213> Ctenocephalides felis

<400> 1885
 atgatcaagt cagttataat tgtggccaac ttttggttat tctagcctt gcaatcgatt 60
 gataatcggc agactaacia ctgctctgag attggtgttg atggtttttt ttgtctcaac 120
 tgcagcgtca cagctttttg tggtagagga cctacgggtg aattcaacac cgtgtctaca 180
 agtccatgta gttctggtga agtttgagc acctgggctg gtagatgttc tgcagatcca 240
 agcccatgtt tctcggaagg ttctataact tgcaccggtc caggagtttt tctgatccg 300
 tatgattgtc agcgttatca tgaatgtaaa actgcaaatg aatcatctaa gcctgtcgag 360
 tgtgggggtt acaaggctta taatgttata gaaaataatt gtagcctgaa catgaatcat 420
 caatcgtgta aacgcttaca atttcattgt gatactatag gagatgaaaa tgcttgccg 480
 agcaatagaa atatatatta taggtgcacc gaaaaaacct tgtggttcaa tagcaacaaa 540
 atattatctc ctttattata tgggtgtgat gagagtgaga tatatgatgc agtgcagaga 600

gtttgcgtaa gagatgaaac caccacgacg cctgccacaa cgccaaccga atcttccacg 660
 tctagtgaac caaccacgac gtctgccaca acatcaaccg aatcttccac gtctagtga 720
 acaaccacga cgtctgccac aacaccaacc gaatcttcca cgtctagtga aacaaccacg 780
 acgtctgcca caacaccaac cgaatcttcc acgtctagtga aaacaaccac gacgtctgcc 840
 acaacaccaa ccgaatcttc cacgtctagt gaaacaacca cgacgtctgc cacaacacca 900
 accgaatctt ccacgtctgg tgaaacaacc acgacgtctg ccacaacacc aaccgaacct 960
 tccacaaagc ctacttctac ggaaactccc gcaacaaaac caccgcaaga aataccatgc 1020
 aaacaacaag gtccgctgat gcaagatcca cacgattgtc acgcatatta cacatgtcta 1080
 gaaattggat cattaccgaa acattttaat tgtaataaag gtgcttattt caatacagtc 1140
 aaattaaaat gcgtgaaagg aaattgcaaa aatagcacag aaattcctct tcctgagctt 1200
 ccagacattt gcgatgaagt aggacctttg gtgcaagatc caaacgattg ccgcaagtat 1260
 tattcatgcg tcacgattgg aaaagaacct gaacatttta cgtgcaataa aggggctgat 1320
 tttgatcgag aaagattacg gtgtgtcaga ggatcttgt 1359

<210> 1886

<211> 1359

<212> DNA

<213> Ctenocephalides felis

<400> 1886

acaagatcct ctgacacacc gtaatcttcc tcgatcaaaa tacgcccctt tattgcacgt 60
 aaaatgttca ggttcttttc caatcgtgac gcatgaataa tacttgccgc aatcgtttg 120
 atcttgcacc aaaggctcta ctccatcgca aatgtctgga agctcaggaa gaggaatttc 180
 tgtgtctattt tcgcaatttc ctctcacgca ttttaatttg actgtattga aataagcacc 240
 tttattacaa ttaaaatggt tcggtaatga tccaatttct agacatgtgt aatatgctgt 300
 acaatcgtgt ggatcttgca tcagcggacc ttgttgtttg catggtattt ctgcggtgg 360
 ttttgttgcg ggagtttccg tagaagtagg ctttgtggaa ggttcggttg gtgttgtggc 420
 agacgtcgtg gttgtttcac cagacgtgga agattcgggt ggtgttgtgg cagacgtcgt 480
 ggttgtttca ctagacgtgg aagattcggg ttggtgtgtg gcagacgtcg tgggtgtttc 540
 actagacgtg gaagattcgg ttggtgttgt ggcagacgtc gtggttgttt cactagacgt 600
 ggaagattcg gttggtgttg tggcagacgt cgtggttgtt tcaactagac tggaagattc 660
 ggttgatgtt gtggcagacg tcgtggttgt ttactagac gtggaagatt cggttggcgt 720
 tgtggcaggc gtcgtggttg ttcatctctc tacgcaaaact ctctgcactg catcatatat 780
 ctactctca tcacaccgat ataataaagg atataatatt ttgttgctat tgaaccacaa 840
 ggttttttcg gtgcacctat aatatatatt tctattgctc ggccaagcat ttcatctcc 900
 tatagtatca caatgaaatt gtaagcgttt acacgattga tgattcatgt tcaggctaca 960
 attattttct ataacattat aagccttgta acccccacac tcgacaggct tagatgattc 1020
 atttgcagtt ttacattcat gataacgctg acaatcatal ggatcaggaa aaactcctgg 1080
 accggtgcaa gttatagaac ctcccgagaa acatgggctt ggatctgcag aacatctacc 1140
 cgcccaggta ctgcaaaact caccagaact acatggactt gtagacacgg tggtgaattc 1200
 acccgtaggt cctctaccac aaaaagctgt gacgtgcag ttgagacaaa aaaaaccatc 1260
 aacaccaatc tcagagcagt tgttagtctg ccgattatca atcgattgca aggctacgaa 1320
 tagccaaaag ttggccacaa ttataactga cttgatcat 1359

<210> 1887

<211> 406

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (20)..(262)

<400> 1887

```
gttaatttaa aataacaaa atg aaa gga aca tta tta ata tta tca tgt ctt 52
      Met Lys Gly Thr Leu Leu Ile Leu Ser Cys Leu
            1             5             10

gtg atc atg ata agt gcc gaa tat gct gac gta gat gtg tgc caa gat 100
Val Ile Met Ile Ser Ala Glu Tyr Ala Asp Val Asp Val Cys Gln Asp
      15             20             25

ttg gac gat gga act ttt ctt gct gat tca aac aat tgc caa aat ttc 148
Leu Asp Asp Gly Thr Phe Leu Ala Asp Ser Asn Asn Cys Gln Asn Phe
      30             35             40

ttc att tgt gat gga ggc cga gct tgg aaa atg tat tgt cca gga tca 196
Phe Ile Cys Asp Gly Gly Arg Ala Trp Lys Met Tyr Cys Pro Gly Ser
      45             50             55

ctt tta tgg aat gat cac gaa gga aca tgt gat tac gca caa aat gta 244
Leu Leu Trp Asn Asp His Glu Gly Thr Cys Asp Tyr Ala Gln Asn Val
      60             65             70             75

gaa tgt tac caa cca gaa taaaacattt taatatctga cagcgatttt 292
Glu Cys Tyr Gln Pro Glu
      80

ctgaaactat atttcatact actgttataa taaatttatc ttcattgctc toctcctata 352

aatttattcc gttttaataa aatcaatata aagacaaaaa aaaaaaaaaa aaaa 406
```

<210> 1888

<211> 81

<212> PRT

<213> Ctenocephalides felis

<400> 1888

```
Met Lys Gly Thr Leu Leu Ile Leu Ser Cys Leu Val Ile Met Ile Ser
      1             5             10             15

Ala Glu Tyr Ala Asp Val Asp Val Cys Gln Asp Leu Asp Asp Gly Thr
      20             25             30
```

Phe Leu Ala Asp Ser Asn Asn Cys Gln Asn Phe Phe Ile Cys Asp Gly
 35 40 45

Gly Arg Ala Trp Lys Met Tyr Cys Pro Gly Ser Leu Leu Trp Asn Asp
 50 55 60

His Glu Gly Thr Cys Asp Tyr Ala Gln Asn Val Glu Cys Tyr Gln Pro
 65 70 75 80

Glu

<210> 1889

<211> 406

<212> DNA

<213> Ctenocephalides felis

<400> 1889

tttttttttt tttttttttg tcttttatatt gattttatta aaacggaata aatttatagg 60
 aggagagcaa tgaagataaa tttattataa cagtagtatg aaatatagtt tcagaaaatc 120
 gctgtcagat attaaaatgt tttattcttg ttggtaacat tctacatttt gtgcgtaatc 180
 acatgttctt tctgtatcat tccataaaaag tgatcctgga caatacattt tccaagctcg 240
 gcctccatca caaatgaaga aattttggca attgtttgaa tcagcaagaa aagttccatc 300
 gtccaaatct tggcacacat ctacgtcagc atattcggca cttatcatga tcacaagaca 360
 tgataatatt aataatgttc ctttcatttt gttattttta attaac 406

<210> 1890

<211> 243

<212> DNA

<213> Ctenocephalides felis

<400> 1890

atgaaaggaa cattattaat attatcatgt cttgtgatca tgataagtgc cgaatatgct 60
 gacgtagatg tgtgccaaaga tttggacgat ggaacttttc ttgctgattc aaacaattgc 120
 caaaatttct tcatttgtga tggaggccga gcttggaaaa tgtattgtcc aggatcactt 180
 ttatggaatg atcacgaagg aacatgtgat tacgcacaaa atgtagaatg ttaccaacca 240
 gaa 243

<210> 1891

<211> 243

<212> DNA

<213> Ctenocephalides felis

<400> 1891

```
ttctggttgg taacattcta ctttttgtgc gtaatcacat gttccttcgt gatcattcca 60
taaaagtgat cctggacaat acattttoca agctcggcct ccatcacaaa tgaagaaatt 120
ttggcaattg tttgaatcag caagaaaagt tccatcgtcc aaatcttggc acacatctac 180
gtcagcataat tcggcactta tcatgatcac aagacatgat aatattaata atgttccttt 240
cat 243
```

<210> 1892

<211> 974

<212> DNA

<213> *Ctenocephalides felis*

<400> 1892

```
ttaatgtcga cggaacgcct ttaacagtaa ataaagaagt atttgcacat ttggatgagc 60
ccgcaccagg agtagtacct actcctgaac ctacacctgt accgaaaccc gagcaaaaat 120
gtaaaaaagt aaaatttagt tgcgtgaatt cgtgcagttc acccgaaatg cagtattgtc 180
cggaatatag agcagatccg gttaaggaat cctgtagccc agatcaagtg tgcgctgac 240
aaagtggata tctacagtgc accactaaag aaagtacagt ctgcaaagta caagggtttca 300
aatgtccgtc accatcgaga ttttatccaa atataaatga ttgtcaaagc tattattatt 360
gtgacgaaaa tagtatagga acccaatatt attgccccgc aaattttgca tatgatccgt 420
tacgtcataa ttgoggacct atggctctgg gcacaaaatg ctatacagtt acatgtcctg 480
cacagcctaa ggtgcttccg tacattggtg ataaatcatt gtacgtcgta tgtatggccg 540
gaagaggaac cgtattgcaa tgcgaagaac ccgccgagtt ttccccaagg agcgaaacct 600
gtgtcgggca atgccgagca cgtggaaaat ttgctttcaa gaacgacgca acatgccgga 660
agttcttcac gtgtttacgt cctaaaggag agccagttcc tgatcaatgt ccgattggaa 720
cagtatttaa ccaagctact caaagotgca acacaggaac ttgcgagagg aaacctaat 780
tatattaata tattgatgaa gtattcaaca aaagaaacta tacaaaatat gtactttgtt 840
ttactttatg tgttatataa aaaaatatta tggttgaaca caggctcgca aatatgataa 900
ggcatttaag aattttacaa tttagatttt tttaaatcca tgaatatatt tgttctaata 960
aaaaaaaaaaaa 974
```

<210> 1893

<211> 974

<212> DNA

<213> *Ctenocephalides felis*

<400> 1893

```
ttaatgtcga cggaacgcct ttaacagtaa ataaagaagt atttgcacat ttggatgagc 60
ccgcaccagg agtagtacct actcctgaac ctacacctgt accgaaaccc gagcaaaaat 120
gtaaaaaagt aaaatttagt tgcgtgaatt cgtgcagttc acccgaaatg cagtattgtc 180
cggaatatag agcagatccg gttaaggaat cctgtagccc agatcaagtg tgcgctgac 240
aaagtggata tctacagtgc accactaaag aaagtacagt ctgcaaagta caagggtttca 300
aatgtccgtc accatcgaga ttttatccaa atataaatga ttgtcaaagc tattattatt 360
gtgacgaaaa tagtatagga acccaatatt attgccccgc aaattttgca tatgatccgt 420
tacgtcataa ttgoggacct atggctctgg gcacaaaatg ctatacagtt acatgtcctg 480
cacagcctaa ggtgcttccg tacattggtg ataaatcatt gtacgtcgta tgtatggccg 540
```

```

gaagaggaac cgtattgcaa tgcgaagaac ccgccgagtt ttccccaagg agcgaaacct 600
gtgtcgggca atgccgagca cgtggaaaat ttgctttcaa gaacgacgca acatgccgga 660
agttcttcac gtgtttacgt cctaaaggag agccagttcc tgatcaatgt ccgattggaa 720
cagtatttaa ccaagctact caaagctgca acacaggaac ttgcgagagg aaacctaaat 780
tatattaata tattgatgaa gtattcaaca aaagaaacta tacaaaatat gtactttgtt 840
ttactttatg tggtatataa aaaaatatta tgggtgaaca caggctcgca aatatgataa 900
ggcatttaag aattttacaa tttagatttt tttaaatcca tgaatatatt tgttctaata 960
aaaaaaaaaa aaaa

```

974

<210> 1894

<211> 1043

<212> DNA

<213> Ctenocephalides felis

<400> 1894

```

tgttttatat cacattgggt tttattagtt ttgtggcggt atctgtcggt accgcttatg 60
atggtgagtt taatgtcgac ggaacgcctt taacagtaaa taaagaagta tttgcatcat 120
tggtatgagcc cgcaccagga gtagtaccta ctctgaacc tacacctgta ccgaaacccg 180
agcaaaaatg taaaaaagta aaatttagtt gcgtgaattc gtgcagttca cccgaaatgc 240
agtattgtcc ggaaatagga gcagatccgg ttaaggaatc ctgtagccca gatcaagtgt 300
gcgtgatca aagtggatat ctacagtgc cactaaaga aagtacagtc tgcaaagtac 360
aaggtttcaa atgtccgtca ccatcgagat tttatccaaa tataaatgat tgtcaaagct 420
attattattg tgacgaaaat agtataggaa ccaatatta ttgccccgca aattttgcat 480
atgatccggt acgtcataat tgcggaccta tggctctggg cacaaaatgc tatacagtta 540
catgtcctgc acagcctaag gtgcttcogt acattggtga taaatcattg tacgtcgtat 600
gtatggccgg aagaggaacc gtattgcaat gcgaagaacc ccgccgagtt tccccaagga 660
gcgaaacctg tgtcgggcaa tgccgagcac gtggaaaatt tgctttcaag aacgacgcaa 720
catgccggaa gttcttcacg tgtttacgtc ctaaggaga gccagttcct gatcaatgtc 780
cgattggaac agtatttaac caagctactc aaagctgcaa cacaggaact tgcgagagga 840
aacctaaatt atattaatat attgatgaag tattcaacaa aagaaactat acaaaatatg 900
tactttgttt tactttatgt gttatataaa aaaatattat ggttgaacac aggctcgcaa 960
atatgataag gcatttaaga attttacaat ttagatTTTT ttaaattccat gaatatattt 1020
gttctaataa aaaaaaaaaa aaa

```

1043

<210> 1895

<211> 1043

<212> DNA

<213> Ctenocephalides felis

<400> 1895

```

tttttttttt ttttgattag aacaaatata ttcattggatt taaaaaaatc taaattgtaa 60
aattcttaaa tgccttatca tatttgcgag cctgtgttca accataatat ttttttatat 120
aacacataaa gtaaaacaaa gtacatattt tgtatagttt cttttgttga atacttcata 180
aatatattaa tataattttag gtttcctctc gcaagttcct gtgttgagc tttgagtagc 240
ttggttaaact actgttccaa tcggacattg atcaggaact ggctctcctt taggacgtaa 300
acacgtgaag aacttccggc atgttgcgtc gttcttgaaa gcaaattttc cactgtctcg 360

```

```
gcattgcccg acacagggttt cgctccttgg ggaaaactcg gcgggttctt cgcattgcaa 420
tacggttcct ctcccgcca tacatacgac gtacaatgat ttatcaccaa tgtacggaag 480
caccttaggc tgtgcaggac atgtaactgt atagcatttt gtgccagag ccatagggtcc 540
gcaattatga cgtaacggat catatgcaaa atttgcgggg caataatatt gggttcctat 600
actattttcg tcacaataat aatagctttg acaatcattt atatttggat aaaatctcga 660
tggtgacgga catttgaaac ctgtacttt gcagactgta ctttcttag tggtgactg 720
tagatatoca ctttgatcag cgcacacttg atctgggcta caggattcct taaccggatc 780
tgctcctatt tccggacaat actgcatttc ggggtgaactg cacgaattca cgcaactaaa 840
ttttactttt ttacattttt gctcgggttt cgggtacagg gttaggttcag gagtaggtac 900
tactcctggt gcgggctcat ccaatgatgc aaatacttct ttatttactg ttaaaggcgt 960
tccgtcgaca ttaaactcac catcataagc ggtaacgaca gataacgcca caaaactaat 1020
aaaaaccaat gtgatataaa aca 1043
```

<210> 1896

<211> 1062

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (19)..(873)

<400> 1896

```
gtaacatatt tattaaga atg ttt tat atc aca ttg gtt ttt att agt ttt 51
Met Phe Tyr Ile Thr Leu Val Phe Ile Ser Phe
1 5 10
```

```
gtg gcg tta tct gtc gtt acc gct tat gat ggt gag ttt aat gtc gac 99
Val Ala Leu Ser Val Val Thr Ala Tyr Asp Gly Glu Phe Asn Val Asp
15 20 25
```

```
gga acg cct tta aca gta aat aaa gaa gta ttt gca tca ttg gat gag 147
Gly Thr Pro Leu Thr Val Asn Lys Glu Val Phe Ala Ser Leu Asp Glu
30 35 40
```

```
ccc gca cca gga gta gta cct act cct gaa cct aca cct gta ccg aaa 195
Pro Ala Pro Gly Val Val Pro Thr Pro Glu Pro Thr Pro Val Pro Lys
45 50 55
```

```
ccc gag caa aaa tgt aaa aaa gta aaa ttt agt tgc gtg aat tcg tgc 243
Pro Glu Gln Lys Cys Lys Lys Val Lys Phe Ser Cys Val Asn Ser Cys
60 65 70 75
```

```
agt tca ccc gaa atg cag tat tgt ccg gaa ata gga gca gat ccg gtt 291
Ser Ser Pro Glu Met Gln Tyr Cys Pro Glu Ile Gly Ala Asp Pro Val
80 85 90
```


	165		170		175
Cys Tyr Thr Val Thr Cys Pro Ala Gln Pro Lys Val Leu Pro Tyr Ile					
	180		185		190
Gly Asp Lys Ser Leu Tyr Val Val Cys Met Ala Gly Arg Gly Thr Val					
	195		200		205
Leu Gln Cys Glu Glu Pro Ala Glu Phe Ser Pro Arg Ser Glu Thr Cys					
	210		215		220
Val Gly Gln Cys Arg Ala Arg Gly Lys Phe Ala Phe Lys Asn Asp Ala					
	225		230		235
					240
Thr Cys Arg Lys Phe Phe Thr Cys Leu Arg Pro Lys Gly Glu Pro Val					
		245		250	255
Pro Asp Gln Cys Pro Ile Gly Thr Val Phe Asn Gln Ala Thr Gln Ser					
	260		265		270
Cys Asn Thr Gly Thr Cys Glu Arg Lys Pro Lys Leu Tyr					
	275		280		285

<210> 1898
 <211> 1062
 <212> DNA
 <213> Ctenocephalides felis

<400> 1898
 gtaacatatt tattaagaat gttttatata acattggttt ttattagttt tgtggcggtta 60
 tctgtcggtta ccgcttatga tggtaggttt aatgtcgacg gaacgccttt aacagtaaat 120
 aaagaagtat ttgcatcatt ggatgagccc gcaccaggag tagtacctac tcctgaacct 180
 acacctgtac cgaaacccga gcaaaaatgt aaaaaagtaa aatttagttg cgtgaattcg 240
 tgcagttcac ccgaaatgca gtattgtccg gaaataggag cagatccggt taaggaatcc 300
 tgtagcccag atcaagtgtg cgctgatcaa agtggatatc tacagtgcac cactaaagaa 360
 agtacagtct gcaaagtaca aggtttcaaa tgtccgtcac catcgagatt ttatccaaat 420
 ataaatgatt gtcaaagcta ttattattgt gacgaaaata gtataggaac ccaatattat 480
 tgccccgcaa attttgcata tgatccgtta cgtcataatt gcggacctat ggctctgggc 540
 acaaaatgct atacagttac atgtcctgca cagcctaagg tgcttccgta cattggtgat 600
 aaatcattgt acgtcgtatg tatggccgga agaggaaccg tattgcaatg cgaagaaccc 660
 gccgagtttt ccccaaggag cgaaacctgt gtcgggcaat gccgagcacg tggaaaattt 720
 gctttcaaga acgacgcaac atgccggaag ttcttcacgt gtttacgtcc taaaggagag 780
 ccagttcctg atcaatgtcc gattggaaca gtatttaacc aagctactca aagctgcaac 840
 acaggaactt gcgagaggaa acctaaatta tattaatata ttgatgaagt attcaacaaa 900
 agaaactata caaaatatgt actttgtttt actttatgtg ttatataaaa aaatattatg 960
 gttgaacaca ggctcgcaaa tatgataagg catttaagaa ttttacaatt tagatttttt 1020

taaatccatg aatatatttg ttctaataca aaaaaaaaaa aa

1062

<210> 1899

<211> 855

<212> DNA

<213> Ctenocephalides felis

<400> 1899

atgtttttata tcacattggt ttttatttagt tttgtggcgt tatctgtcgt taccgcttat 60
gatggtgagt ttaatgtcga cggaacgcct ttaacagtaa ataaagaagt atttgcata 120
ttggatgagc cgcaccagg agtagtacct actcctgaac ctacacctgt accgaaaccc 180
gagcaaaaat gtaaaaaagt aaaatttagt tgcgtgaatt cgtgcagttc accogaaatg 240
cagtattgtc cggaaatagg agcagatccg gttaaggaat cctgtagccc agatcaagtg 300
tgcgctgate aaagtggata tctacagtgc accactaaag aaagtacagt ctgcaaagta 360
caaggtttca aatgtccgtc accatcgaga ttttatccaa atataaatga ttgtcaaagc 420
tattattatt gtgacgaaaa tagtatagga acccaatatt attgccccgc aaattttgca 480
tatgatccgt tacgtcataa ttgcggacct atggctctgg gcacaaaatg ctatacagtt 540
acatgtcctg cacagcctaa ggtgcttccg tacattgggtg ataaatcatt gtacgtcgta 600
tgtatggcog gaagaggaac cgtattgcaa tgcgaagaac ccgccgagtt ttccccaagg 660
agcgaaacct gtgtcgggca atgccgagca cgtggaaaat ttgctttcaa gaacgacgca 720
acatgccgga agttcttcac gtgtttacgt cctaaaggag agccagttcc tgatcaatgt 780
ccgattggaa cagtatttaa ccaagctact caaagctgca acacaggaac ttgcgagagg 840
aaacctaaat tatat 855

<210> 1900

<211> 855

<212> DNA

<213> Ctenocephalides felis

<400> 1900

atataattta ggtttcctct cgcaagttcc tgtgttgca ctttgagtag cttgggttaa 60
tactgttcca atcggacatt gatcaggaac tggctctcct ttaggacgta aacacgtgaa 120
gaacttccgg catgttgogt cgttcttgaa agcaaatttt ccacgtgctc ggcattgccc 180
gacacagggtt tcgctccttg gggaaaactc ggcggttct tcgcattgca atacggttcc 240
tcttccggcc atacatacga cgtacaatga tttatcacca atgtacgga gcaccttagg 300
ctgtgcagga catgtaactg tatagcattt tgtgccaga gccataggtc cgcaattatg 360
acgtaacgga tcatatgcaa aatttgcggt gcaataatat tgggttccta tactattttc 420
gtcacaataa taatagcttt gacaatcatt tataatttga taaaatctcg atggtgacgg 480
acatttgaac ccttgctact tgcagactgt actttcttta gtggtgcaact gtagatatcc 540
actttgatca gcgcacactt gatctgggct acaggattcc ttaaccggat ctgctcctat 600
ttccggacaa tactgcattt cgggtgaact gcacgaattc acgcaactaa attttacttt 660
tttacatttt tgctcgggtt tcggtacagg tgtaggttca ggagtaggta ctactcctgg 720
tgccgggtca tccaatgatg caaatacttc tttatttact gttaaaggcg ttccgtcgac 780
attaaactca ccatcataag cggtaacgac agataacgcc aaaaaactaa taaaaaccaa 840
tgtgatataa aacat 855

<210> 1901
 <211> 1875
 <212> DNA
 <213> Ctenocephalides felis

<220>
 <221> CDS
 <222> (44)..(1633)

<400> 1901

```

acaaaacggt ttaattgaat ctgtagtttg gaaattaata aat atg gac agt aac 55
                                         Met Asp Ser Asn
                                         1

acg ggg att caa ata ata gct tcc aaa gaa cca aaa cca agg cag ttt 103
Thr Gly Ile Gln Ile Ile Ala Ser Lys Glu Pro Lys Pro Arg Gln Phe
  5              10              15              20

gaa gat gcg ttg gca ctc aca ggt ttt gga aaa ttc aat tac ctt ctt 151
Glu Asp Ala Leu Ala Leu Thr Gly Phe Gly Lys Phe Asn Tyr Leu Leu
              25              30              35

ctg gtc gtg agt gga tgc gta tta gta tgt gtt ttg atg gaa act ctt 199
Leu Val Val Ser Gly Cys Val Leu Val Cys Val Leu Met Glu Thr Leu
              40              45              50

gga atg agt ttt gtc gtt cct tca gca caa tgt gat ctg gaa tta aca 247
Gly Met Ser Phe Val Val Pro Ser Ala Gln Cys Asp Leu Glu Leu Thr
              55              60              65

aca aaa caa aaa gga ata tta agc gct ata gct ttt ata ggt att ata 295
Thr Lys Gln Lys Gly Ile Leu Ser Ala Ile Ala Phe Ile Gly Ile Ile
              70              75              80

agc agt tca cat tta tgg gga ttt tta gcc gat acg aga ggg agg cgg 343
Ser Ser Ser His Leu Trp Gly Phe Leu Ala Asp Thr Arg Gly Arg Arg
              85              90              95              100

aaa gtg att atg cct aca ctt ctt ctt gca ttt ttt tgt acc ttg gca 391
Lys Val Ile Met Pro Thr Leu Leu Leu Ala Phe Phe Cys Thr Leu Ala
              105              110              115

tct agt ttt gta aat tca gtt tgg ctg ttt att ttg ctg cga tat ttc 439
Ser Ser Phe Val Asn Ser Val Trp Leu Phe Ile Leu Leu Arg Tyr Phe
              120              125              130

aat gga ttt ttc gta tct gga gga agt gca aca ata tat gca tat tta 487

```

Asn Gly Phe Phe Val Ser Gly Gly Ser Ala Thr Ile Tyr Ala Tyr Leu
135 140 145

gga gaa ttt cat aat cct agg cat cgc agc agg gct att atg gga gcg 535
Gly Glu Phe His Asn Pro Arg His Arg Ser Arg Ala Ile Met Gly Ala
150 155 160

tca agc atc ttc gga ttt gcg tgt ctt gca tta ccg acg gtt gca tgg 583
Ser Ser Ile Phe Gly Phe Ala Cys Leu Ala Leu Pro Thr Val Ala Trp
165 170 175 180

tta att ata aat cag aaa tgg tca ttc tat att gac ttt ttg gga tat 631
Leu Ile Ile Asn Gln Lys Trp Ser Phe Tyr Ile Asp Phe Leu Gly Tyr
185 190 195

aca tac aag ccc tgg agg ttg tat atg gtt gca tgt ggt ttg cca tca 679
Thr Tyr Lys Pro Trp Arg Leu Tyr Met Val Ala Cys Gly Leu Pro Ser
200 205 210

ctg ctt tgt tgt ttt gct ttg tgg aaa tta cca gaa agt ccc aaa ttt 727
Leu Leu Cys Cys Phe Ala Leu Trp Lys Leu Pro Glu Ser Pro Lys Phe
215 220 225

ttg atg aat cag gga aga aac gaa gaa gct cgt caa att att gcc aaa 775
Leu Met Asn Gln Gly Arg Asn Glu Glu Ala Arg Gln Ile Ile Ala Lys
230 235 240

atg tat aga att aat act ggt aaa cca gaa agt gaa ttc ccc gta tca 823
Met Tyr Arg Ile Asn Thr Gly Lys Pro Glu Ser Glu Phe Pro Val Ser
245 250 255 260

tca atc tta gat gaa tat cca gga gtg gat ggt gaa aat aca aat aaa 871
Ser Ile Leu Asp Glu Tyr Pro Gly Val Asp Gly Glu Asn Thr Asn Lys
265 270 275

aca aag aaa tca ttt tta aga act gta tgg gat caa act gct ccg ctg 919
Thr Lys Lys Ser Phe Leu Arg Thr Val Trp Asp Gln Thr Ala Pro Leu
280 285 290

ttt atg ggt gag cac atg aaa aaa aca ctc att gca tgt act ctg caa 967
Phe Met Gly Glu His Met Lys Lys Thr Leu Ile Ala Cys Thr Leu Gln
295 300 305

ttc gga ata ttt gcc aca tct aac ggc atg tac atg tgg ttt ccc gat 1015
Phe Gly Ile Phe Ala Thr Ser Asn Gly Met Tyr Met Trp Phe Pro Asp
310 315 320

atc ata agt aaa atg aca gaa ttt caa aac gct cat cca gga gta cca 1063

Lys Gln Val Asp Arg Arg Thr Ser Ile Ala Ser Tyr Gly Pro
520 525 530

taaccatatt tccgtcgtgt gttgtgaaat gcaattatac tttgagaaag tattatcaat 1693
tacaaagaaa attcagagtt gctactgaat cattttctaa aacatcgaca tgaaaattaa 1753
taactcttta ttgttattag attcgatgta agatatatgt acatactcat aggtaaaaaa 1813
tgtaatgcc gtcaatgttc aaaattataa agagaataaa taaatacgtt aaaaaaaaaa 1873
aa 1875

<210> 1902

<211> 530

<212> PRT

<213> Ctenocephalides felis

<400> 1902

Met Asp Ser Asn Thr Gly Ile Gln Ile Ile Ala Ser Lys Glu Pro Lys
1 5 10 15

Pro Arg Gln Phe Glu Asp Ala Leu Ala Leu Thr Gly Phe Gly Lys Phe
20 25 30

Asn Tyr Leu Leu Leu Val Val Ser Gly Cys Val Leu Val Cys Val Leu
35 40 45

Met Glu Thr Leu Gly Met Ser Phe Val Val Pro Ser Ala Gln Cys Asp
50 55 60

Leu Glu Leu Thr Thr Lys Gln Lys Gly Ile Leu Ser Ala Ile Ala Phe
65 70 75 80

Ile Gly Ile Ile Ser Ser Ser His Leu Trp Gly Phe Leu Ala Asp Thr
85 90 95

Arg Gly Arg Arg Lys Val Ile Met Pro Thr Leu Leu Leu Ala Phe Phe
100 105 110

Cys Thr Leu Ala Ser Ser Phe Val Asn Ser Val Trp Leu Phe Ile Leu
115 120 125

Leu Arg Tyr Phe Asn Gly Phe Phe Val Ser Gly Gly Ser Ala Thr Ile
130 135 140

Tyr Ala Tyr Leu Gly Glu Phe His Asn Pro Arg His Arg Ser Arg Ala

145		150		155		160
Ile Met Gly Ala Ser Ser Ile Phe Gly Phe Ala Cys Leu Ala Leu Pro						
	165		170		175	
Thr Val Ala Trp Leu Ile Ile Asn Gln Lys Trp Ser Phe Tyr Ile Asp						
	180		185		190	
Phe Leu Gly Tyr Thr Tyr Lys Pro Trp Arg Leu Tyr Met Val Ala Cys						
	195		200		205	
Gly Leu Pro Ser Leu Leu Cys Cys Phe Ala Leu Trp Lys Leu Pro Glu						
	210		215		220	
Ser Pro Lys Phe Leu Met Asn Gln Gly Arg Asn Glu Glu Ala Arg Gln						
	225		230		235	240
Ile Ile Ala Lys Met Tyr Arg Ile Asn Thr Gly Lys Pro Glu Ser Glu						
	245		250		255	
Phe Pro Val Ser Ser Ile Leu Asp Glu Tyr Pro Gly Val Asp Gly Glu						
	260		265		270	
Asn Thr Asn Lys Thr Lys Lys Ser Phe Leu Arg Thr Val Trp Asp Gln						
	275		280		285	
Thr Ala Pro Leu Phe Met Gly Glu His Met Lys Lys Thr Leu Ile Ala						
	290		295		300	
Cys Thr Leu Gln Phe Gly Ile Phe Ala Thr Ser Asn Gly Met Tyr Met						
	305		310		315	320
Trp Phe Pro Asp Ile Ile Ser Lys Met Thr Glu Phe Gln Asn Ala His						
	325		330		335	
Pro Gly Val Pro Ser Thr Ile Cys Tyr Val Val Gln Asn Ser Ser Met						
	340		345		350	
Leu Arg Ala Asp Asp Phe Ile Asp Thr Thr Asn Ser Thr Thr Glu Cys						
	355		360		365	
Lys Asp Thr Met Glu Glu Gln Ala Phe Met His Ser Leu Met Leu Glu						
	370		375		380	
Ala Gly Tyr Ala Ile Gly Phe Pro Ile Ile Gly Ala Ile Ile Asn Ser						
	385		390		395	400
Val Gly Lys Leu Pro Ile Leu Val Phe Val Met Val Ser Cys Gly Ile						

tctgtcattt tacttatgat atcgggaaac cacatgtaca tgccgttaga tgtggcaa 900
 attccgaatt gcagagtaca tgcaatgagt gtttttttca tgtgctcacc cataaacagc 960
 ggagcagttt gatcccatatc agttcttaaa aatgatttct ttgttttatt tgtattttca 1020
 ccatccactc ctggatattc atctaagatt gatgatacgg ggaattcact ttctgggtta 1080
 ccagtattaa ttctatacat tttggcaata atttgacgag cttcttcggt tcttccctga 1140
 ttcatcaaaa atttgggact ttctggtaat ttccacaaag caaaacaaca aagcagtgat 1200
 ggcaaaccac atgcaaccat atacaacctc cagggtttgt atgtatatcc caaaaagtca 1260
 atatagaatg accatttctg atttataatt aacctatgcaa ccgtcggtaa tgcaagacac 1320
 gcaaatccga agatgcttga cgctcccata atagccctgc tgcgatgcct aggattatga 1380
 aattctccta aatatgcata tattgttgca cttcctccag atacgaaaaa tccattgaaa 1440
 tatcgcagca aaataaacag ccaaactgaa tttacaaaac tagatgcaa ggtacaaaaa 1500
 aatgcaagaa gaagtgtagg cataatcact ttccgcctcc ctctcgtatc ggctaaaaat 1560
 ccccataaat gtgaactgct tataatacct ataaaagcta tagcgcttaa tttcttttt 1620
 tgttttgttg ttaattccag atcacattgt gctgaaggaa cgacaaaact cattccaaga 1680
 gtttccatca aaacacatac taatacgcac cactcacga ccagaagaag gtaattgaat 1740
 tttccaaaac ctgtgagtgc caacgcact tcaaactgcc ttggtttttg ttctttggaa 1800
 gctattattt gaatccccgt gttactgtcc atatttatta atttccaaac tacagattca 1860
 attaaaccgt tttgt 1875

<210> 1904

<211> 1590

<212> DNA

<213> *Ctenocephalides felis*

<400> 1904

atggacagta acacggggat tcaaataata gcttccaaag aacccaaacc aaggcagttt 60
 gaagatgcgt tggcactcac aggttttggg aaattcaatt accttcttct ggtcgtgagt 120
 ggatgcgtat tagtatgtgt tttgatggaa actcttggaa tgagttttgt cgttccctca 180
 gcacaatgtg atctggaatt aacaacaaaa caaaaaggaa tattaagcgc tatagctttt 240
 ataggtatta taagcagttc acatttatgg ggatttttag ccgatacagag agggaggcgg 300
 aaagtgatta tgccctacact tcttcttgca tttttttgta ccttggcatc tagttttgta 360
 aattcagttt ggctgtttat tttgctgcga tatttcaatg gatttttctg atctggagga 420
 agtgaacaa tatatgcata tttaggagaa tttcataatc ctaggcacgc cagcagggct 480
 attatgggag cgtcaagcat cttcggattt gcgtgtcttg cattaccgac ggttgcatgg 540
 ttaattataa atcagaaatg gtcattctat attgactttt tgggatatac atacaagccc 600
 tggaggttgt atatggttgc atgtggtttg ccatcactgc tttgtttgtt tgctttgtgg 660
 aaattaccag aaagtcccaa atttttgatg aatcagggaa gaaacgaaga agctcgtcaa 720
 attattgcca aaatgtatag aattaatact ggtaaaccag aaagtgaatt ccccgatatca 780
 tcaatcttag atgaatatcc aggagtggat ggtgaaaata caaataaaac aaagaaatca 840
 tttttaagaa ctgtatggga tcaaactgct ccgctgttta tgggtgagca catgaaaaaa 900
 acaactcatt catgtactct gcaattcgga atatttgcca catctaaccg catgtacatg 960
 tggtttcccg atatcataag taaaatgaca gaatttcaaa acgctcatcc aggagtacca 1020
 agtacaatat gctacgttgt ccaaaattca tcaatgctta gggcggacga cttcattgat 1080
 actacgaata gtacgacoga gtgtaaagac acaatggaag aacaggcatt tatgcattct 1140
 ttaatgttgg aagctggata tgcgattgga tttcccataa taggtgctat tattaactct 1200
 gtgggaaagc ttccaattct tgtattcgtg atggtctcat gcgggatttg tggaataatt 1260
 tgtgcattta ttgaacattt aacaatagca tcatatttat atttgtggtt gctgggtttg 1320

ggaattgctg tgacagtggg aaacgcggca ttagtagatc tgtaccctac acaactcagg 1380
gcaatggcag tatgtatatc tttaatatg ggtcgattag gaagtgttgt tggaagcaat 1440
gttgtaggaa taattctaga ttataattgc gatttaacat ttttaatatc aggaacatct 1500
ctgatagcat gtggagtgat tgcattcttt ataccgaaca tttatcagaa gcaagtggat 1560
agaagaacga gcattgcttc atatggacca 1590

<210> 1905

<211> 1590

<212> DNA

<213> Ctenocephalides felis

<400> 1905

tggtccatat gaagcaatgc tggttcttct atccacttgc ttctgataaa tgttcgggtat 60
aaagaatgca atcaactccac atgctatcag agatgttcct gatattaaaa atgttaaatac 120
gcaattataa tctagaatta ttctacaac attgcttcca acaacacttc ctaatcgacc 180
catcattaaa gatatacata ctgccattgc cctgagttgt gtaggggtaca gatctactaa 240
tgccgcgttt accactgtca cagcaattcc gcaaaccagc aaccacaaat ataaatatga 300
tgctattgtt aaatgttcaa taaatgcaca aattattcca caaatccgc atgagaccat 360
cacgaataca agaattggaa gctttccac agagttaata atagcaccta ttatgggaaa 420
tccaatcgca tatccagctt ccaacattaa agaatgcata aatgcctgtt cttccattgt 480
gtctttacac tcggtcgtac tattcgtagt atcaatgaag tcgtccgcc taagcattga 540
tgaatttttg acaacgtagc atattgtact tggtagctct ggatgagcgt tttgaaattc 600
tgtcatttta cttatgatat cgggaaacca catgtacatg ccgttagatg tggcaaatat 660
tccgaattgc agagtacatg caatgagtggt ttttttcattg tgcacacca taaacagcgg 720
agcagtttga tcccatacag ttcttaaaaa tgatttcttt gttttatttg tattttcacc 780
atccactcct ggatattcat ctaagattga tgatacgggg aattcaattt ctggtttacc 840
agtattaatt ctatacattt tggcaataat ttgacgagct tcttcgtttc ttccctgatt 900
catcaaaaat ttgggacttt ctggtaattt ccacaaagca aaacaacaaa gcagtgatgg 960
caaaccacat gcaaccatat acaacctcca gggcttgat gtatatccca aaaagtcaat 1020
atagaatgac cttttctgat ttataattaa ccatgcaacc gtcggtaatg caagacacgc 1080
aaatccgaag atgcttgacg ctcccataat agccctgctg cgatgcctag gattatgaaa 1140
ttctcctaaa tatgcatata ttgttgcaat tcttcagat acgaaaaatc cattgaaata 1200
tcgcagcaaa ataaacagcc aaactgaatt taaaaacta gatgccaagg taaaaaaa 1260
tgcaagaaga agtgtaggca taatcacttt ccgcctccct ctcgtatcgg ctaaaaatcc 1320
ccataaatgt gaactgctta taatacctat aaaagctata gcgcttaata ttcttttttg 1380
ttttgttgtt aattccagat cacattgtgc tgaaggaacg aaaaaactca ttccaagagt 1440
ttccatcaaa acacatacta atacgcatcc actcacgacc agaagaaggt aattgaattt 1500
tccaaaacct gtgagtgcc aacgcatctt aaactgcctt ggttttggtt ctttggaagc 1560
tattatttga atccccgtgt tactgtccat 1590

<210> 1906

<211> 381

<212> DNA

<213> Ctenocephalides felis

<400> 1906

acgttatatc gtgcocttaa tggcagcagc tatggcttcc aaatggggttg gtgatgcttt 60
 gggcagacag ggtatatatg atgcccatac acagcttaac ggatatccat tcttggacag 120
 taaagatgaa tttgcacata catcttttagc tgcagatgtc atgcaaccca agaggaatga 180
 aacattaagt gtaatcactc aagactcgat gactgtggat gatgttgaag gtttactgaa 240
 agaaactgag cacaatggat atccagttgt tgtttccaga gaatctcagt atcttgttgg 300
 atttgttttg aggagggact taaatctagc catagccaat gctagacgca tgatcgatgg 360
 gataacagga caaagtttgg t 381

<210> 1907

<211> 381

<212> DNA

<213> Ctenocephalides felis

<400> 1907

accaaacttt gtccctgttat cccatcgatc atgcgtctag cattggctat ggctagattt 60
 aagtccctcc tcaaaacaaa tccaacaaga tactgagatt ctctggaaac aacaactgga 120
 tatccattgt gctcagtttc tttcagtaaa ccttcaacat catccacagt catcgagtct 180
 tgagtgatta cacttaatgt ttcatctctc ttgggttgca tgacatctgc agctaaagat 240
 gtatgtgcaa attcatcttt actgtccaag aatggatata cattaagctg tatatgggca 300
 tcatatatac cctgtctgcc caaagcatca ccaacccatt tggaagccat agctgctgcc 360
 attaagggca cgatataacg t 381

<210> 1908

<211> 2191

<212> DNA

<213> Ctenocephalides felis

<400> 1908

atTTTTgctt ctttggcagc ctctttggtg cgcattgttg caccttatgc ttgtgggtca 60
 ggtataccag agattaaaac cattctgagt ggtttcatca tcagaggata tcttggaaaa 120
 tggacattga ttattaaaag tgttaggaatc atgttgtctg tatcagctgg attgagtttg 180
 ggtaaagaag gtcctatggt acacattgcc agctgtatag gtaatatatt gtcttattta 240
 tttcctaaat atggtcggaa tgaagcaaag aaacgagaga ttttatcagc agctgcagca 300
 gctggtgtat ctggtgcatt tggagcacct attggagggtg tgcttttcag tttggaagag 360
 gtgagctact atttccatt gaagacctta tggagatcat tcttctgtgc tttgatagca 420
 gctttcatat tgogatccat aaatccattt ggaaatgagc actctgtcct tttctatgtg 480
 gaatacaata aaccttggat attttttgaa ctgatacctt tcataggcct tggaataatt 540
 ggtggtgttg tagcaacgct gtttataaaa gctaatttgt actggtgtcg ctaccgtaaa 600
 ttttctaaac taggacagta cccggttgca gaagttttag ttgttgctgt tgcaacagca 660
 gtgattgctt atcctaatac ttacaccagg atgaatacta gtcaactgat ttatttacta 720
 ttcagccaat gcgggatttc caattctgat cctttgtgtg attacaatcg caatttact 780
 gatgttaaat cagctataga aatagcagca gctggctcctg gtgtctacca ggctgtgtgg 840
 ttgtctctga ttgctttggt actgaaattg ggaatgactg tatttacctt tggtatgaaa 900
 gtaccatgtg gtctgtttat cccaagttta tgcctaggag ctattatggg tagaattgtg 960
 ggcattggaa ttgaacaatt ggcttactat tatccaaaat tatggttcct ttctggtgaa 1020
 tgctcaactg gagacaattg catcacaccg ggcctgtatg ctatgggtgg cgctgcagct 1080

```

gttttaggtg gtgtcactag aatgacagtt tctctggtgg taataatggt tgaactgact 1140
gggtggtgtac gttatatcgt gcccttaatg gcagcagcta tggcttccaa atggggttgg 1200
gatgctttgg gcagacaggg tatatatgat gcccatatac agcttaatgg atatccattc 1260
ttggacagta aagatgaatt tgcacatata tcttttagctg cagatgtcat gcaacccaag 1320
aggaatgaaa cattaagtgt aatcactcaa gactcgatga ctgtggatga tgttgaaggt 1380
ttactgaaag aaactgagca caatggatat ccagttggtt tttccagaga atctcagtat 1440
cttgttggat ttgttttgag gagggactta aatctagcca tagccaatgc tagacgcatg 1500
atcgatggga taacaggaca aagtttggtt cttttcataa atggccctac agtgcaaagt 1560
ttaggacctc cacctttgaa actaaagaaa atattagata tggctccaat aacagtgact 1620
gatcaaacac caatggaaac tgtggtggat atgttttagaa aactaggttt acgtcagaca 1680
ttagtcacac acaatgggcg tttgctcggt gttataacta aaaaagatgt tttacgacat 1740
gtaaaacaaa tggataatga agatcctaata agtatacttt ttaattaata tttacatata 1800
tgtattaaat aataaatggt aagttgcata aaaatccata aaactatgta ggtgtacatt 1860
ttaatggcta ttcttcatat acctaaatga aaagactaaa aagaaaccaa tttttaaaat 1920
atthaggtat ttgatataat acatatttat tttaatatga atagtatttt gtgtaattta 1980
attgaaggca tcacaaatta aattgtgtaa ttgttataac agaatacagag tgtatatatt 2040
agatttatcg attcgaaatt tgtacaaaat gtatctcagt tttttttaat gaggacttag 2100
aaaattttat tgttaattga ttattttttt agtattattt tagtatttgt aactgattat 2160
taaacgattg attataaaaa aaaaaaaaaa a 2191

```

<210> 1909

<211> 2191

<212> DNA

<213> Ctenocephalides felis

<400> 1909

```

tttttttttt ttttttataa tcaatcgttt aataatcagt tacaaatact aaaataatac 60
taaaaaaata atcaattaac aataaaattt tctaagtcct cattaaaaaa aactgagata 120
cattttgtac aaattttogaa togataaatc taatatatac actctgattc tgttataaca 180
attacacaat ttaatttgtg atgcottcaa ttaaattaca caaaatacta ttcataattaa 240
aataaatatg tattatatca aatacctaaa tatttttaaaa attggtttct ttttagtctt 300
ttcatttagg tatatgaaga atagccatta aaatgtacac ctacatagtt ttatggattt 360
ttatgcaact taacatttat tatttaatac atatatgtaa atattaatta aaaagtatac 420
tattaggatc ttcattatcc atttgtttta catgtcgtaa aacatctttt ttagttataa 480
caccgagcaa acgcccattg tgtgtgacta atgtctgacg taaacctagt tttctaaaca 540
tatccaccac agtttccatt ggtgtttgat cagtcactgt tattggagcc atatctaata 600
ttttcttttag tttcaaaggt ggaggtccta aactttgcac tgtagggcca tttatgaaaa 660
gtaccaaact ttgtcctggt atcccatcga tcatgcgtct agcattggct atggctagat 720
ttaagtccct cctcaaaaaca aatccaacaa gatactgaga ttctctggaa acaacaactg 780
gatatccatt gtgctcagtt tctttcagta aaccttcaac atcatccaca gtcacgagat 840
cttgagtgat tacacttaat gtttcattcc tcttgggttg catgacatct gcagctaaag 900
atgtatgtgc aaattcatct ttactgtcca agaattgata tccattaagc tgtatatggg 960
catcatatat accctgtctg cccaaagcat caccaaccca tttggaagcc atagctgctg 1020
ccattaaggg cacgatataa cgtacaccac cagtcagttc aaacattatt accaccagag 1080
aaactgtcat tctagtgaac ccacctaaaa cagctgcagc gccaccata gcatacaggc 1140
ccggtgtgat gcaattgtct ccagttgagc attcaccaga aaagaacat aattttggat 1200
aatagtaagc caattgttca attccaatgc ccacaattct acccataata gtccttaggc 1260

```


aattggctta ctattatcca aaattatggt tcttttctgg tgaatgctca actggagaca 1500
attgcatcac accgggcctg tatgctatgg tgggcgctgc agctgtttta ggtgggtgtca 1560
ctagaatgac agtttctctg gtggttaataa tgtttgaact gactgggtgg gtacgttata 1620
tcgtgccctt aatggcagca gctatggctt ccaaattgggt tggatgatgct ttgggcagac 1680
agggtatata tgatgcccac atacagctta atggatatcc attcttggac agtaaagatg 1740
aatttgcaca tacatcttta gctgcagatg tcatgcaacc caagaggaat gaaacattaa 1800
gtgtaatcac tcaagactcg atgactgtgg atgatgttga aggtttactg aaagaaactg 1860
agcacaatgg atatccagtt gttgtttcca gagaatctca gtatcttgtt ggatttgttt 1920
tgaggaggga cttaaacta gccatagcca atgctagacg catgatcg 1968

<210> 1911

<211> 1968

<212> DNA

<213> Ctenocephalides felis

<400> 1911

cgatcatgog tctagcattg gctatggcta gatttaagtc cctcctcaaa acaaattccaa 60
caagatactg agattctctg gaaacaacaa ctggatatcc attgtgctca gtttctttca 120
gtaaaccttc aacatcatcc acagtcatcg agtcttgagt gattacaatt aatgtttcat 180
tcctcttggg ttgcatgaca tctgcagcta aagatgtatg tgcaaattca tctttactgt 240
ccaagaatgg atatccatta agctgtatat gggcatcata tataccctgt ctgcccacaa 300
catcaccaac ccatthggaa gccatagctg ctgccattaa gggcacgata taacgtacac 360
caccagtcat ttcaaactt attaccacca gagaaactgt cattctagt acaccacct 420
aaacagctgc agcgcccacc atagcatata ggcccgtgt gatgcaattg tctccagtgt 480
agcattcacc agaaaagaac cataattttg gataatagta agccaattgt tcaattccaa 540
tgcccacaat tctaccata atagctccta ggcataaact tgggataaac agaccacatg 600
gtactttcat accaaaggta aatacagtca ttcccaattt cagtaccaa gcaatcagga 660
gcaaccacac agcctggtag acaccaggac cagctgctgc tatttctata gctgatttaa 720
catcagttaa attgcatg taatcacaca aaggatcaga attggaaatc ccgcatggc 780
tgaatagtaa ataaatcagt tgactagtat tcatcctggt gtaaggatta ggataagcaa 840
tactgctgt tgcaacagca acaactaaaa cttctgcaac ggggtactgt cctagttag 900
aaaatttacg gttagcgacac cagtacaaat tagcttttat aaacagcgtt gctacaacac 960
caccaattat tccaaggcct atgaaaggta tcagttcaaa aaatatccaa ggtttattgt 1020
attccacata gaaaaggaca gagtgtcat ttccaaatgg atttatggat cgcaatatga 1080
aagctgctat caaagcacag aagaatgatc tccataaggc cttcaatggg aaatagtagc 1140
tcacctcttc caaactgaaa agcacacctc caatagggtgc tccaaatgca acagatacac 1200
cagctgctgc agctgctgat aaaatctctc gtttctttgc ttcattccga ccatatttag 1260
gaaataaata agacaatata ttacctatac agctggcaat gtgtaccata ggaccttctt 1320
taccacaaact caatccagct gatacagaca acatgattcc tacactttta ataataatg 1380
tccattttcc aagatatcct ctgatgatga aaccactcag aatgggtttta atctctggta 1440
tacctgaccc acaagcataa ggtgcaaaca tgcgcaccaa agaggctgcc aaagaagcaa 1500
aaatcaatgc ccaaataata taaaacaaat aagcaattat gtaagcccc gccccagttc 1560
taggttgtcc gaaaacctca ggccaagtca gccattgtga gcaatttcca tcatcaaagg 1620
ttgtttcatt caatgaccaa caacattgtt ctctattcaa ccagaatgct tgtgggcaaa 1680
cacogttctt taaatccgtc atccaacttg ctccgatata tatgacgcct gcaatagctc 1740
ctgtcaccag ccogactagg agaacacaca cccaacctga ccaggcatca tgggcaccc 1800
ttatcaggtc tagtatagag tcttgtcgtt ttttaacaat atatcgatgt ctcatcgat 1860

ctctggctat atcacgttgc caatctatcg tatggaaatc atcatattgc ccaatcccag 1920
gaatatcatc gctttcagct tgcataaccag caaatgatat gccaccac 1968

<210> 1912

<211> 673

<212> DNA

<213> *Ctenocephalides felis*

<400> 1912

tactcactat atggctcgag cggccgcccg ggcagtcgtt tttgttagaa aaagtacaaa 60
aattanttaa tgtaacagtg cttgtgatat aaaaaataat gattcaagtg catcataatt 120
aaatcaatta attttttttaa aatcttagaa atgaatttaa agcagctatg gagaaatata 180
cattaaaagg aaattctacg atacgtttta gtggctctgc ttcttatcaa tcggttacta 240
aaaaaaaaacg cccaggagac tccactaata acatagtggg acgagtggtt catcctttga 300
gcggcacgat gccctcggac ggaccccaac agcataatcc agtgtcggac tcgggcgatt 360
tttcgccaga cgaattcggc aaacgtatat ttctctcccg atccacacag ttgaccttgg 420
atgatgataa tggatcagca aatttgcaa ttaaatttga gggctcttct agtggtgga 480
tatcatttgc tggatgcaa gctgaaagcg atgatattcc tgggattggg caatatgatg 540
atttccatac gatagattgg caacgtgata tagccagaga tcgaatgaga catcgatata 600
ttgttaaaaa acgacaagac tctatactag acctgataaa gggtgcccat gatgcctggt 660
caggttgggt gtg 673

<210> 1913

<211> 673

<212> DNA

<213> *Ctenocephalides felis*

<400> 1913

cacacccaac ctgaccaggc atcatgggca ccctttatca ggtctagtat agagtottgt 60
cgtttttttaa caatatatcg atgtctcatt cgatctcttg ctatatcacg ttgccaatct 120
atcgtatgga aatcatcata ttgcccaatc ccaggaatat catcgctttc agcttgcata 180
ccagcaaatg atatgccacc actagaaaga ccctcaaatt taattgcaa atttgctgat 240
ccattatcat catccagggt caactgtgtg gatccgggag gaaatatacg tttgccgaat 300
tcgtctggcg aaaaatcgcc cgagtcggac actggattat gctgttggg tccgtccgag 360
ggcatcgtgc cgctcaaagg atgatccact cgttccacta tgtgattagt ggagtctcct 420
gggcgttttt ttttagtaac cgattgataa gaagcaggac cacttaaagc tatcgtagaa 480
tttcctttta atggatattt ctccatagct gctttaaatt catttctaag attttaaaaa 540
aatlaattga tttaaatatg atgcacttga atcattattt tttatatcac aagcactgtt 600
acattaanta atttttgtac tttttctaac aaaaacgact gcccgggcgg ccgctcgagc 660
catatagtga gta 673

<210> 1914

<211> 3126

<212> DNA

<213> *Ctenocephalides felis*

099196-120

<220>

<221> CDS

<222> (168)..(2720)

<400> 1914

tactcactat atggctcgag cggccgcccg ggcagtcggt tttgtagaa aaagtacaaa 60

aattanttaa tgtaacagtg cttgtgatat aaaaaataat gattcaagtg catcatattt 120

aaatcaatta attttttttaa aatcttagaa atgaatttaa agcagct atg gag aaa 176
Met Glu Lys

1

tat cca tta aaa gga aat tct acg ata cgt tta agt ggt cct gct tct 224
Tyr Pro Leu Lys Gly Asn Ser Thr Ile Arg Leu Ser Gly Pro Ala Ser
5 10 15

tat caa tcg gtt act aaa aaa aaa cgc cca gga gac tcc act aat cac 272
Tyr Gln Ser Val Thr Lys Lys Lys Arg Pro Gly Asp Ser Thr Asn His
20 25 30 35

ata gtg gaa cga gtg gat cat cct ttg agc ggc acg atg ccc tcg gac 320
Ile Val Glu Arg Val Asp His Pro Leu Ser Gly Thr Met Pro Ser Asp
40 45 50

gga ccc caa cag cat aat cca gtg tcg gac tcg ggc gat ttt tcg cca 368
Gly Pro Gln Gln His Asn Pro Val Ser Asp Ser Gly Asp Phe Ser Pro
55 60 65

gac gaa ttc ggc aaa cgt ata ttt cct ccc gga tcc aca cag ttg acc 416
Asp Glu Phe Gly Lys Arg Ile Phe Pro Pro Gly Ser Thr Gln Leu Thr
70 75 80

ctg gat gat gat aat gga tca gca aat ttg gca att aaa ttt gag ggt 464
Leu Asp Asp Asp Asn Gly Ser Ala Asn Leu Ala Ile Lys Phe Glu Gly
85 90 95

ctt tct agt ggt ggc ata tca ttt gct ggt atg caa gct gaa agc gat 512
Leu Ser Ser Gly Gly Ile Ser Phe Ala Gly Met Gln Ala Glu Ser Asp
100 105 110 115

gat att cct ggg att ggg caa tat gat gat ttc cat acg ata gat tgg 560
Asp Ile Pro Gly Ile Gly Gln Tyr Asp Asp Phe His Thr Ile Asp Trp
120 125 130

caa cgt gat ata gcc aga gat cga atg aga cat cga tat att gtt aaa 608
Gln Arg Asp Ile Ala Arg Asp Arg Met Arg His Arg Tyr Ile Val Lys

135	140	145	
aaa cga caa gac tct ata cta gac ctg ata aag ggt gcc cat gat gcc			656
Lys Arg Gln Asp Ser Ile Leu Asp Leu Ile Lys Gly Ala His Asp Ala			
150	155	160	
tgg tca ggt tgg gtg tgt gtt ctc cta gtc ggg ctg gtg aca gga gct			704
Trp Ser Gly Trp Val Cys Val Leu Leu Val Gly Leu Val Thr Gly Ala			
165	170	175	
att gca ggc gtc ata gat atc gga gca agt tgg atg acg gat tta aag			752
Ile Ala Gly Val Ile Asp Ile Gly Ala Ser Trp Met Thr Asp Leu Lys			
180	185	190	195
aac ggt gtt tgc cca caa gca ttc tgg ttg aat aga gaa caa tgt tgt			800
Asn Gly Val Cys Pro Gln Ala Phe Trp Leu Asn Arg Glu Gln Cys Cys			
200	205	210	
tgg tca ttg aat gaa aca acc ttt gat gat gga aat tgc tca caa tgg			848
Trp Ser Leu Asn Glu Thr Thr Phe Asp Asp Gly Asn Cys Ser Gln Trp			
215	220	225	
ctg act tgg cct gag gtt ttc gga caa cct aga act ggg gcg ggg gct			896
Leu Thr Trp Pro Glu Val Phe Gly Gln Pro Arg Thr Gly Ala Gly Ala			
230	235	240	
tac ata att got tat ttg ttt tat att att tgg gca ttg att ttt got			944
Tyr Ile Ile Ala Tyr Leu Phe Tyr Ile Ile Trp Ala Leu Ile Phe Ala			
245	250	255	
tct ttg gca gcc tct ttg gtg cgc atg ttt gca cct tat gct tgt ggg			992
Ser Leu Ala Ala Ser Leu Val Arg Met Phe Ala Pro Tyr Ala Cys Gly			
260	265	270	275
tca ggt ata cca gag att aaa acc att ctg agt ggt ttc atc atc aga			1040
Ser Gly Ile Pro Glu Ile Lys Thr Ile Leu Ser Gly Phe Ile Ile Arg			
280	285	290	
gga tat ctt gga aaa tgg aca ttg att att aaa agt gta gga atc atg			1088
Gly Tyr Leu Gly Lys Trp Thr Leu Ile Ile Lys Ser Val Gly Ile Met			
295	300	305	
ttg tct gta tca gct gga ttg agt ttg ggt aaa gaa ggt cct atg gta			1136
Leu Ser Val Ser Ala Gly Leu Ser Leu Gly Lys Glu Gly Pro Met Val			
310	315	320	
cac att gcc agc tgt ata ggt aat ata ttg tct tat tta ttt cct aaa			1184
His Ile Ala Ser Cys Ile Gly Asn Ile Leu Ser Tyr Leu Phe Pro Lys			

335

act gat gtt aaa tca gct ata gaa ata gca gca gct ggt cct ggt gtc 1760
Thr Asp Val Lys Ser Ala Ile Glu Ile Ala Ala Ala Gly Pro Gly Val

[illegible]

720

tttgttaactg attattaaac gattgattat aaaaaaaaaa aaaaaa 3126

<210> 1915

<211> 851

<212> PRT

<213> Ctenocephalides felis

<400> 1915

Met Glu Lys Tyr Pro Leu Lys Gly Asn Ser Thr Ile Arg Leu Ser Gly
1 5 10 15

Pro Ala Ser Tyr Gln Ser Val Thr Lys Lys Lys Arg Pro Gly Asp Ser
20 25 30

Thr Asn His Ile Val Glu Arg Val Asp His Pro Leu Ser Gly Thr Met
35 40 45

Pro Ser Asp Gly Pro Gln Gln His Asn Pro Val Ser Asp Ser Gly Asp
50 55 60

Phe Ser Pro Asp Glu Phe Gly Lys Arg Ile Phe Pro Pro Gly Ser Thr
65 70 75 80

Gln Leu Thr Leu Asp Asp Asp Asn Gly Ser Ala Asn Leu Ala Ile Lys
85 90 95

Phe Glu Gly Leu Ser Ser Gly Gly Ile Ser Phe Ala Gly Met Gln Ala
100 105 110

Glu Ser Asp Asp Ile Pro Gly Ile Gly Gln Tyr Asp Asp Phe His Thr
115 120 125

Ile Asp Trp Gln Arg Asp Ile Ala Arg Asp Arg Met Arg His Arg Tyr
130 135 140

Ile Val Lys Lys Arg Gln Asp Ser Ile Leu Asp Leu Ile Lys Gly Ala
145 150 155 160

His Asp Ala Trp Ser Gly Trp Val Cys Val Leu Leu Val Gly Leu Val
165 170 175

Thr Gly Ala Ile Ala Gly Val Ile Asp Ile Gly Ala Ser Trp Met Thr
180 185 190

Asp Leu Lys Asn Gly Val Cys Pro Gln Ala Phe Trp Leu Asn Arg Glu
195 200 205

Gln Cys Cys Trp Ser Leu Asn Glu Thr Thr Phe Asp Asp Gly Asn Cys
210 215 220

taattgctta tttgttttat attatttggg cattgatttt tgcttctttg gcagcctctt 960
 tgggtgcgcat gtttgcacct tatgcttggt ggtaggtagt accagagatt aaaaccattc 1020
 tgagtgggtt catcatcaga ggatatcttg gaaaatggac attgattatt aaaagtgtag 1080
 gaatcatgtt gtctgtatca gctggattga gtttgggtaa agaaggtcct atggtacaca 1140
 ttgccagctg tataggtaat atattgtctt atttatttcc taaatatggt cggaatgaag 1200
 caaagaaaacg agagatttta tcagcagctg cagcagctgg tgtatctgtt gcatttggag 1260
 cacctattgg aggtgtgctt ttcagtttgg aagaggtgag ctactatttc ccattgaaga 1320
 ccttatggag atcattcttc tgtgctttga tagcagcttt catattgcga tccataaatc 1380
 catttggaaa tgagcactct gtccttttct atgtggaata caataaacct tggatatttt 1440
 ttgaactgat acctttcata ggccttggaa taattgggtg tgttgttagca acgctgttta 1500
 taaaagctaa tttgtactgg tgtcgtacc gtaaattttc taaactagga cagtaccccg 1560
 ttgcagaagt tttagtgtt gctgttgcaa cagcagtgat tgcttatcct aatccttaca 1620
 ccaggatgaa tactagtcaa ctgatttatt tactattcag ccaatgcggg atttccaatt 1680
 ctgatccttt gtgtgattac aatcgcaatt tcaactgatg taaatcagct atagaaatag 1740
 cagcagctgg tcttgggtgc taccaggctg tgtggttgc cctgattgct ttggtactga 1800
 aattgggaat gactgtattt accttggta tgaaagtacc atgtggtctg tttatcccaa 1860
 gtttatgcct aggagctatt atgggtagaa ttgtgggcat tggaattgaa caattggctt 1920
 actattatcc aaaattatgg ttcttttctg gtgaatgctc aactggagac aattgcatca 1980
 caccgggctt gtatgctatg gtgggogctg cagctgtttt aggtggtgtc actagaatga 2040
 cagtttctct ggtggttaata atgtttgaac tgactggtg tgtacgttat atcgtgccct 2100
 taatggcagc agctatggct tccaaatggg ttggtgatgc tttgggcaga cagggtatat 2160
 atgatccca tatacagctt aatggatata cattcttggg cagtaaagat gaatttgcac 2220
 atacatcttt agctgcagat gtcatgcaac ccaagaggaa tgaaacatta agtgtaatca 2280
 ctcaagactc gatgactgtg gatgatgttg aagggttact gaaagaaact gagcacaatg 2340
 gatatccagt tgttgtttcc agagaatctc agtatcttgt tggatttgtt ttgaggaggg 2400
 acttaaactc agccatagcc aatgctagac gcatgatcga tgggataaca ggacaaagt 2460
 tggtaacttt cataaatggc cctacagtgc aaagtttagg acctccacct ttgaaactaa 2520
 agaaaatatt agatatggct ccaataacag tgactgatca aacaccaatg gaaactgtgg 2580
 tggatatgtt tagaaaacta ggtttacgtc agacattagt cacacacaat gggcgtttgc 2640
 tgggtgttat aactaaaaaa gatgttttac gacatgtaaa acaaatggat aatgaagatc 2700
 ctaatagtat actttttaat taatatttac atatatgtat taaataataa atgttaagtt 2760
 gcataaaaat ccataaaact atgtaggtgt acattttaat ggctattctt catataccta 2820
 aatgaaaaga ctaaaaagaa accaattttt aaaatattta ggtatttgat ataatacata 2880
 tttattttta tatgaatagt attttgtgta atttaattga aggcacaca aattaaattg 2940
 tgtaattgtt ataacagaat cagagtgtat atattagatt tatcgattcg aaatttgtac 3000
 aaaatgtatc tcagtttttt ttaatgagga cttagaaaat tttattgtta attgattatt 3060
 tttttagtat ttttttagta tttgtaactg attattaaac gattgattat aaaaaaaaaa 3120
 aaaaaa 3126

<210> 1917

<211> 2553

<212> DNA

<213> Ctenocephalides felis

<400> 1917

atggagaaat atccattaaa aggaaattct acgatacgtt taagtgggtc tgcttcttat 60
 caatcggtta ctaaaaaaaa acgcccagga gactccacta atcacatagt ggaacgagtg 120


```

gatcatcctt tgagcggcac gatgccctcg gacggacccc aacagcataa tccagtgtcg 180
gactcgggcg atttttcgcc agacgaattc ggcaaacgta tatttcctcc cggatccaca 240
cagttgaccc tggatgatga taatggatca gcaaatttgg caattaaatt tgagggtctt 300
tctagtgggtg gcatatcatt tgctgggtatg caagctgaaa gcgatgatat tcctgggatt 360
gggcaatatg atgatttcca tacgatagat tggcaacgtg atatagccag agatcgaatg 420
agacatcgat atattgttaa aaaacgacaa gactctatac tagacctgat aaagggtgcc 480
catgatgcct ggtcagggtt ggtgtgtgtt ctccctagtcg ggctgggtgac aggagctatt 540
gcaggcgctca tagatatcgg agcaagttgg atgacggatt taaagaacgg tgtttgcca 600
caagcattct ggttgaatag agaacaatgt tgttggtcat tgaatgaaac aacctttgat 660
gatggaaatt gctcacaatg gctgacttgg cctgagggtt tgggacaacc tagaactggg 720
gcgggggcctt acataattgc ttatttgttt tatattattt gggcattgat ttttgcttct 780
ttggcagcct ctttgggtgc catgtttgca ccttatgctt gtgggtcagg tataccagag 840
attaaaacca ttctgagtgg tttcatcatc agaggatatac ttggaaaatg gacattgatt 900
attaaaagt taggaatcat gttgtctgta tcagctggat tgagtttggg taaagaagg 960
cctatggtag acattgccag ctgtataggt aatatattgt cttatttatt tcctaaatat 1020
ggtcgggaatg aagcaaagaa acgagagatt ttatcagcag ctgcagcagc tgggtgtatct 1080
gttgcatattg gagcacctat tggaggtgtg cttttcagtt tggaagagg gagctactat 1140
ttccattga agaccttatg gagatcatc ttctgtgctt tgatagcagc tttcatattg 1200
cgatccataa atccatttgg aatgagcac tctgtccttt tctatgtgga atacaataaa 1260
ccttgatata tttttgaact gatacctttc ataggccttg gaataattgg tgggtgtgta 1320
gcaacgctgt ttataaaaagc taatttgtac tgggtgtcgt accgtaaatt ttctaaacta 1380
ggacagtacc ccgttgcaga agtttttagtt gttgtctgtg caacagcagt gattgcttat 1440
cctaatacctt acaccaggat gaatactagt caactgattt atttactatt cagccaatgc 1500
gggatttcca attctgatcc tttgtgtgat tacaatcgca atttactga tgttaaataca 1560
gctatagaaa tagcagcagc tggctcctgg gtctaccagg ctgtgtgggt gctcctgatt 1620
gctttggtac tgaaattggg aatgactgta tttacctttg gtatgaaagt accatgtggt 1680
ctgtttatcc caagtttatg cctaggagct attatgggta gaattgtggg cattggaatt 1740
gaacaattgg cttactatta tccaaaatta tgggtctttt ctgggtgaatg ctcaactgga 1800
gacaattgca tcacaccggg cctgtatgct atgggtggcg ctgcagctgt tttagggtgt 1860
gtcactagaa tgacagtttc totgggtggtg ataattgttg aactgactgg tgggtgtacgt 1920
tatatcgtgc ccttaatggc agcagctatg gcttccaaat ggggttggtg tgctttgggc 1980
agacagggtg tatatgatgc ccatatacag cttaatggat atccattctt ggacagtaaa 2040
gatgaatttg cacatacatc tttagctgca gatgtcatgc aaccaagag gaatgaaaca 2100
ttaagtgtaa tcaactcaaga ctcatgact gtggatgatg ttgaagggtt actgaaagaa 2160
actgagcaca atggatatcc agttgtgtgt tccagagaat ctcatgtatc tgttggtatt 2220
gttttgagga gggacttaaa tctagccata gccaatgcta gacgcatgat cgatgggata 2280
acaggacaaa gtttggtact tttcataaat ggccctacag tgcaaagttt aggacctcca 2340
cctttgaaac taaagaaaat attagatatg gctccaataa cagtgactga tcaaacacca 2400
atggaaactg tgggtgatat gtttagaaaa ctaggtttac gtcagacatt agtcacacac 2460
aatgggcgtt tgctcgggtg tataactaaa aaagatgttt tacgacatgt aaaacaaatg 2520
gataatgaag atcctaatag tataacttttt aat 2553

```

<210> 1918

<211> 2553

<212> DNA

<213> Ctenocephalides felis

<400> 1918

```

attaaaaagt atactattag gatcttcatt atccatttgt tttacatgtc gtaaaacatc 60
tttttttagtt ataacaccga gcaaacgccc atttgtgtgtg actaatgtct gacgtaaacc 120
tagtttttcta aacatatcca ccacagtttc cattgggtgtt tgatcagtca ctgttattgg 180
agccatatct aatattttct ttagtttcaa aggtggaggt cctaaacttt gcactgtagg 240
gccatttatg aaaagtacca aactttgtcc tgttatccca tcgatcatgc gtctagcatt 300
ggctatggct agatttaagt ccctcctcaa aacaaatcca acaagatact gagattctct 360
ggaaacaaca actggatata catttgtctc agtttctttc agtaaacttt caacatcatc 420
cacagtcatac gagtcttgag tgattacact taatgtttca ttctcttggg gttgcatgac 480
atctgcagct aaagatgtat gtgcaaattc atctttactg tccaagaatg gatataccatt 540
aagctgtata tgggcatcat atataccctg tctgcccata gcatcaccaa cccatttgga 600
agccatagct gctgccatta agggcacgat ataacgtaca ccaccagtca gttcaaacat 660
tattaccacc agagaaactg tcattctagt gacaccacct aaaacagctg cagcgccccc 720
catagcatatc agggccgggtg tgatgcaatt gtctccagtt gagcattcac cagaaaagaa 780
ccataatttt ggataatagt aagccaattg ttcaattcca atgcccacaa ttctacccat 840
aatagctcct aggcataaac ttgggataaa cagaccacat ggtactttca taccaaaggt 900
aaatacagtc attcccaatt tcagtaccaa agcaatcagg agcaaccaca cagcctggta 960
gacaccagga ccagctgctg ctatttctat agctgattta acatcagtga aattgcgatt 1020
gtaatcacac aaaggatcag aattggaaat cccgcattgg ctgaatagta aataaatcag 1080
ttgactagta ttcatcctgg tgtaaggatt aggataagca atcactgctg ttgcaacagc 1140
aacaactaaa acttctgcaa cgggggtactg tcctagttta gaaaatttac ggtagcgaca 1200
ccagtacaaa ttagctttta taaacagcgt tgctacaaca ccaccaatta ttccaaggcc 1260
tatgaaaggt atcagttcaa aaaatatcca aggtttattg tattccacat agaaaaggac 1320
agagtgtctc tttocaaatg gatttatgga tcgcaatatg aaagctgcta tcaaagcaca 1380
gaagaatgat ctccataagg tcttcaatgg gaaatagtag ctcacctctt ccaaactgaa 1440
aagcacacct ccaatagggtg ctccaaatgc aacagatata ccagctgctg cagctgctga 1500
taaaatctct cgtttctttg cttcattccg accatattta ggaaataaat aagacaatat 1560
attacctata cagctggcaa tgtgtaccat aggaccttct ttaccctaac tcaatccagc 1620
tgatacagac aacatgattc ctacactttt aataatcaat gtccattttc caagatatcc 1680
tctgatgatg aaaccactca gaatggtttt aatctctggt atacctgacc cacaagcata 1740
aggtgcaaac atgctgcacca aagaggctgc caaagaagca aaaatcaatg ccaaataat 1800
ataaaacaaa taagcaatta tgtaagcccc cgccccagtt ctagggttgc cgaaaacctc 1860
aggccaagtc agccattgtg agcaatttcc atcatcaaag gttgtttcat tcaatgacca 1920
acaacattgt tctctattca accagaatgc ttgtgggcaa acaccgttct ttaaattcgt 1980
catccaactt gctccgatat ctatgacgcc tgcaatagct cctgtcacca gcccgactag 2040
gagaacacac acccaacctg accaggcatc atgggcaccc tttatcaggt ctagtataga 2100
gtcttgtcgt tttttaacaa tatatcgatg tctcattcga tctctggcta tatcacgttg 2160
ccaatctatc gtatggaaat catcatattg cccaatccca ggaatatcat cgctttcagc 2220
ttgcatacca gcaaatgata tgccaccact agaaagaccc tcaaatttaa ttgccaaatt 2280
tgctgatcca ttatcatcat ccagggtcaa ctgtgtggat ccgggaggaa atatacgttt 2340
gccgaattcg tctggcgaaa aatcgccga gtccgacact ggattatgct gttgggggtcc 2400
gtccgagggc atcgtgcgcg tcaaaggatg atccactcgt tccactatgt gattagtgga 2460
gtctcctggg cgtttttttt tagtaaccga ttgataagaa gcaggaccac ttaaactgat 2520
cgtagaattt ccttttaatt gatatttctc cat 2553

```

<210> 1919

<211> 1181

<212> DNA
 <213> Ctenocephalides canis

<220>
 <221> CDS
 <222> (127)..(432)

<400> 1919
 acatcacaga ccgtcgacat ataaacacaa ccgaaatctc ctatcacagt gtacggagtg 60
 taaaatattg ttgaagtatt ttgaaattta ttaatttatt cgaaaaggag atttcattaa 120
 ataaaa atg gtt tac gaa agt gac ttt tac acg acc cgt cgg ccc tac 168
 Met Val Tyr Glu Ser Asp Phe Tyr Thr Thr Arg Arg Pro Tyr
 1 5 10
 agt cgt ccg gct ttg tct tca tac tcc gta acg acg ccg tcc cgt cat 216
 Ser Arg Pro Ala Leu Ser Ser Tyr Ser Val Thr Thr Pro Ser Arg His
 15 20 25 30
 tac gtg gtg act gac act cca tct aga cca agg gta gcg gaa gag caa 264
 Tyr Val Val Thr Asp Thr Pro Ser Arg Pro Arg Val Ala Glu Glu Gln
 35 40 45
 tat tct tac tcc tac cgc agc cag cag gaa aga tct tct gca gat ccc 312
 Tyr Ser Tyr Ser Tyr Arg Ser Gln Gln Glu Arg Ser Ser Ala Asp Pro
 50 55 60
 tac ggc agg aac tat tcg aca acc tcc acc acc gaa agc aca aga cgt 360
 Tyr Gly Arg Asn Tyr Ser Thr Thr Ser Thr Thr Glu Ser Thr Arg Arg
 65 70 75
 gca ggg ggt tat cca gga tct gac tat tct tac acg agc gaa cgc tca 408
 Ala Gly Gly Tyr Pro Gly Ser Asp Tyr Ser Tyr Thr Ser Glu Arg Ser
 80 85 90
 tcc aag aac tgg aga tgg acc agg tagttacaga tccagctata gctccactac 462
 Ser Lys Asn Trp Arg Trp Thr Arg
 95 100
 ttctggacgt cttcctggag gaaccactta ccgtcacttc tcataccgtg tgtaaacacg 522
 aaaattgaaa aattttgttt tgataaattg gtttttattt gaagtctcat aagaactaaa 582
 agaatttttt ttataatttt tatttttttg ctatgaatta ttattactat tatagcactc 642
 atattaatat cctgaaaatg taaaacaaaa ctatgatttc tgatcaaaca accaatttta 702

CG9436-104

tcataactga tttttatcat atcctagat gatgtaatat tgtagtcctt ggaaagtat 762
accagaagaa gactcaatat gctattctgt gtaattatta atataactta atattatattt 822
tatttatatta attaatagc aatgtctact aaaaattgtc taaaattagc ttttaatttt 882
ccctagatat attatcataa aaaccaaaga ttaggcataat ttttgatact gtacaaaattt 942
tcttgatgata taagtattaca atttgattta atttttgttg aaacaaaata cgtaattgga 1002
ttgcaattaa taattataga tactaatagt gatgttgtaa gagttaggac taatagatga 1062
gtcttcttca attttgataa acatattttt ataactctgtg ttaaattttg cacttgtaat 1122
gctgtgcttt ttaatgaata aacatgcaat attaaaactt caaaaaaaaa aaaaaaaaa 1181

<210> 1920

<211> 102

<212> PRT

<213> Ctenocephalides canis

<400> 1920

Met Val Tyr Glu Ser Asp Phe Tyr Thr Thr Arg Arg Pro Tyr Ser Arg
1 5 10 15

Pro Ala Leu Ser Ser Tyr Ser Val Thr Thr Pro Ser Arg His Tyr Val
20 25 30

Val Thr Asp Thr Pro Ser Arg Pro Arg Val Ala Glu Glu Gln Tyr Ser
35 40 45

Tyr Ser Tyr Arg Ser Gln Gln Glu Arg Ser Ser Ala Asp Pro Tyr Gly
50 55 60

Arg Asn Tyr Ser Thr Thr Ser Thr Thr Glu Ser Thr Arg Arg Ala Gly
65 70 75 80

Gly Tyr Pro Gly Ser Asp Tyr Ser Tyr Thr Ser Glu Arg Ser Ser Lys
85 90 95

Asn Trp Arg Trp Thr Arg
100

<210> 1921

<211> 1181

<212> DNA

<213> Ctenocephalides felis

<400> 1921

```

tttttttttt ttttttttga agttttaata ttgcatgttt attcattaaa aagcacagca 60
ttacaagtgc aaaattttaac acagattata aaaatatgtt tatcaaaatt gaagaagact 120
catctattag tcctaactct tacaacatca ctattagtat ctataattat taattgcaat 180
accattacgt attttgtttc aacaaaaatt aaaacaaatt gtaaacttat atcacaagaa 240
aatttgtaca gtatcaaaaa tatgcctaatt ctttggtttt tatgataata tatctaggga 300
aaattaaaag ctaatttttag acaattttta gtagacattg ctaattaatt aaataaataa 360
aaataatatt aagttatatt aataattaca cagaatagca tattgagtct ttttctggta 420
taactttcca aggactacaa tattacatca tcctaggata tgataaaaaat cagtgatgat 480
aaaattgggt gtttgatcag aaatcatagt tttgttttac attttcagga tattaatatg 540
agtgcataaa tagtaataat aattcatagc aaaaaataa aaattataaa aaaaatttctt 600
ttagttctta tgagacttca aataaaaacc aatttatcaa aacaaaattt ttcaattttc 660
gtgtttacac acggtatgag aagtgcaggc aagtgggtcc tccaggaaga cgtccagaag 720
tagtggagct atagctggat ctgtaactac ctgggtccatc tccagttctt ggatgagcgt 780
tcgctcgtgt aagaatagtc agatcctgga taacccctctg cacgtcttgt gctttcgggtg 840
gtggagggtg tcgaatagtt cctgcogtag ggatctgcag aagatctttc ctgctggctg 900
cggtaggagt aagaatattg ctcttccgct acccttggtc tagatggagt gtcagtcacc 960
acgtaatgac gggacggcgt cgttacggag tatgaagaca aagccggacg actgtagggc 1020
cgacgggtcg tgtaaaagtc actttcgtaa accattttta tttaatgaaa tctccttttc 1080
gaataaatta ataaatttca aaataacttca acaatatttt acactccgta cactgtgata 1140
ggagatttcg gttgtgttta tatgtcgacg gtctgtgatg t 1181

```

<210> 1922

<211> 306

<212> DNA

<213> Ctenocephalides felis

<400> 1922

```

atggtttacg aaagtgactt ttacacgacc cgtcggccct acagtcgtcc ggctttgtct 60
tcatactccg taacgacgcc gtcccgtcat taogtgggtga ctgacactcc atctagacca 120
agggtagcgg aagagcaata ttcttactcc taccgcagcc agcaggaaag atcttctgca 180
gatccctacg gcaggaacta ttcgacaacc tccaccaccg aaagcacaag acgtgcaggg 240
ggttatccag gatctgacta ttcttacacg agcgaacgct catccaagaa ctggagatgg 300
accagg 306

```

<210> 1923

<211> 306

<212> DNA

<213> Ctenocephalides felis

<400> 1923

```

cctgggccat ctccagttct tggatgagcg ttcgctcgtg taagaatagt cagatcctgg 60
ataacccctt gcacgtcttg tgctttcggg ggtggagggt gtcgaatagt tcctgccgta 120

```

gggatctgca gaagatcttt cctgctggct gcggtaggag taagaatatt gctcttccgc 180
tacccttggc ctagatggag tgtcagtcac cacgtaatga cgggacggcg tcgttacgga 240
gtatgaagac aaagccggac gactgtaggg ccgacgggtc gtgtaaaagt cactttcgta 300
aaccat 306

<210> 1924

<211> 2161

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (107)..(907)

<400> 1924

ggcaccaggt gagtacttgt actctaacac cgtgccaaag cctcaaacac actcgccctgc 60

gctgggagtt agtacacagt gatctccact ggcaagcgat tacacg atg act ttc 115
Met Thr Phe
1

gga att tca gta att ctg tta gtg tct att tgg aca aca aat act cat 163
Gly Ile Ser Val Ile Leu Leu Val Ser Ile Trp Thr Thr Asn Thr His
5 10 15

gca tat tta aca tca gtg caa gaa tta gac gat gcc ata aga gca gtg 211
Ala Tyr Leu Thr Ser Val Gln Glu Leu Asp Asp Ala Ile Arg Ala Val
20 25 30 35

gtg tca cgg atg cat cga gta gcc gat att gaa agt ggt ggc gaa tac 259
Val Ser Arg Met His Arg Val Ala Asp Ile Glu Ser Gly Gly Glu Tyr
40 45 50

tca gat ctg gga gta gac ttc cca gta ccc gca att cca cga tct caa 307
Ser Asp Leu Gly Val Asp Phe Pro Val Pro Ala Ile Pro Arg Ser Gln
55 60 65

aaa gct cta gaa tcg gat tcg gaa tat gat tcc ata ttc gat gaa ggc 355
Lys Ala Leu Glu Ser Asp Ser Glu Tyr Asp Ser Ile Phe Asp Glu Gly
70 75 80

cag tta cat cct agc ctc aga gat cag gaa tat ctc cag cat agt cct 403
Gln Leu His Pro Ser Leu Arg Asp Gln Glu Tyr Leu Gln His Ser Pro
85 90 95

cta tgg ggt cag cag tac gta agt gga ggc gct ggt gaa ggc caa caa 451
Leu Trp Gly Gln Gln Tyr Val Ser Gly Gly Ala Gly Glu Gly Gln Gln

tattaccggt taaaaccctt tattogaagg agaattaaga actaataaaa caatgtttta 1177
tattaagtag ccgtgtaact tacttttgtgt aatattaaag aggcccatta tataataatt 1237
aaatttaatg tagtaaaacta tttataatat attaataatta taaataacatc attaaaacat 1297
caaattacta atgaaatcta atacaatgct attggaatcc gattggggta tgatcaaatt 1357
tcttattgtc tttctctcta ttatttattt gcaagtttgt tccgtacccc aggacgattt 1417
caaatatagt ctccatcaat gcgcgcattt gcgaaattaa aaaaagctca caaaaattta 1477
ataaagtctc aattacatcc cgagacaaat ttgaaaaagg aagagttgca ttaacaacaa 1537
ttcacattag aaaagaattg attggraaac ttacacntgn tttcggtgaa cgtgtttcag 1597
acccattga tgctcttgta tccgtgcaat gttcatttat aatttccata atttaataata 1657
ttatgaaacc attgtaatgt attgtattat ccgatttttg taatagacat tacaogcaat 1717
gagtgcacga tacgtgttta atgaaataag tgtatgtttt aagatttgca ttcactattt 1777
gacatagata taagtaatta tatttatcaa gcaaatcact tcgtatcatt tctattatgg 1837
atatataata atgatatact aatgtgaaca aaacatctca aaatattttt aaaatataaa 1897
tgtataatta aatttagaat acttttcgtg aactgtaata atttactcac agttcatgct 1957
aacgatcatg tgtctaaata caattatgaa gaagattata tattacatac atgtgaaatc 2017
tatataataa tgcattgcttg ttaaatttat attataatga atatataatg aatattttta 2077
atataatata tatgcgcgtt agttgtcaaa taaaagtcta tattgctccc actattggaa 2137
aaaaaaaaa aaaaaaaaaa aaaa 2161

<210> 1925
<211> 267
<212> PRT
<213> Ctenocephalides felis

<400> 1925
Met Thr Phe Gly Ile Ser Val Ile Leu Leu Val Ser Ile Trp Thr Thr
1 5 10 15
Asn Thr His Ala Tyr Leu Thr Ser Val Gln Glu Leu Asp Asp Ala Ile
20 25 30

Arg	Ala	Val	Val	Ser	Arg	Met	His	Arg	Val	Ala	Asp	Ile	Glu	Ser	Gly			
		35					40					45						
Gly	Glu	Tyr	Ser	Asp	Leu	Gly	Val	Asp	Phe	Pro	Val	Pro	Ala	Ile	Pro			
	50					55				60								
Arg	Ser	Gln	Lys	Ala	Leu	Glu	Ser	Asp	Ser	Glu	Tyr	Asp	Ser	Ile	Phe			
	65				70					75				80				
Asp	Glu	Gly	Gln	Leu	His	Pro	Ser	Leu	Arg	Asp	Gln	Glu	Tyr	Leu	Gln			
			85						90					95				
His	Ser	Pro	Leu	Trp	Gly	Gln	Gln	Tyr	Val	Ser	Gly	Gly	Ala	Gly	Glu			
			100					105					110					
Gly	Gln	Gln	Arg	Leu	Lys	Pro	Asp	Gly	Ser	Ala	Met	Asn	His	Gln	Gln			
	115						120					125						
Val	Lys	Thr	Asp	Asn	Leu	Pro	Ala	Tyr	Cys	Asn	Pro	Pro	Asn	Pro	Cys			
	130					135					140							
Pro	Val	Gly	Leu	Thr	Glu	Glu	His	Gly	Cys	Thr	Glu	Asn	Phe	Glu	Asn			
	145				150					155				160				
Thr	Ala	Ala	Phe	Ser	Arg	Asp	Tyr	Gln	Ala	Ala	Gln	Gln	Cys	Met	Cys			
			165					170						175				
Asp	Gly	Glu	His	Met	Phe	Arg	Cys	Pro	Ser	Ser	Leu	Asp	Gly	Asp	Glu			
		180					185						190					
Leu	Asp	Asp	Ser	Ser	Glu	Ser	Asp	Glu	Gln	Asp	Glu	His	Gln	Asp	Leu			
		195					200					205						
Leu	Asp	Met	Glu	Gly	Gly	Leu	Asp	Thr	Arg	Thr	Ala	Pro	Glu	Ile	Phe			
	210					215					220							
Met	Ala	Gln	Arg	Glu	Tyr	Arg	Arg	Ser	Gly	Leu	Ser	Gly	Asn	Lys	His			
	225				230					235				240				
His	Lys	Arg	Lys	Ser	Thr	Asn	Pro	Tyr	Leu	His	Gly	Glu	Lys	Leu	Pro			
			245					250						255				
Val	Ala	Ala	Lys	Lys	Gly	Ile	Asn	Val	Val	Tyr								
		260					265											

<210> 1926
 <211> 2161
 <212> DNA
 <213> Ctenocephalides felis

<400> 1926

```

tttttttttt tttttttttt ttttttccaa tagtgggagc aatatagact tttatttgac 60
aactaacgcg catatatatt atatttaaaa tattcattat atattcatta taatataaat 120
ttaacaagca tgcattatta tatagatttc acatgtatgt aatatataat cttcttcata 180
attgtattta gacacatgat cgtagcatg aactgtgagt aaattattac agttcacgaa 240
aagtattcta aatttaatta tacatttata ttttaaaaat attttgagat gttttgttca 300
cattagtata tcattattat atatccataa tagaaatgat acgaagtgat ttgcttgata 360
aatataatta cttatatcta tgtcaaatag tgaatgcaaa tcttaaaaca tacacttatt 420
tcattaaaca cgtatcgtgc actcattgcg tgtaatgtct attacaaaaa tcggataata 480
caatacatta caatgggttc ataatatatt aaattatgga aattataaat gaacattgca 540
cggatacaag agcatcaatg gggctctgaaa cacgttcacc gaaancangt gtaagtttyc 600
caatcaattc ttttctaata tgaattgttg ttaatgcaac tcttcctttt tcaaatttgt 660
ctcgggatgt aattgagact ttattaaatt tttgtgagct ttttttaatt tcgcaaatac 720
gcgcattgat ggagactata tttgaaatcg tcctggggtg cggaacaaac ttgcaaataa 780
ataatagaga gaaagacaat aagaaatttg atcatacccc aatcggattc caatagcatt 840
gtattagatt tcattagtaa tttgatgttt taatgatgta tttataatat taatatatta 900
taaatagttt actacattaa atttaattat tatataatgg gcctctttta tattacacaa 960
agtaagttac acggctactt aatattaaac attgttttat tagttcttaa ttctccttcg 1020
aataaagggt ttttaaccgg aatacatatg taatgactaa cgaaaactaa attatttttg 1080
tagatttttc ttttgtttat tcggtttgaa atcattattc cgtttatcaa ttgccaaagt 1140
cgtttacaaa tgcttttttc tgaataataa ttagcatttg tttctgggtt ggtttatcca 1200
aaaaaataaa aatatatttt gttaaattag tgggtgagcgt tttaaattgg ttcagtagac 1260
aacgttgata cccttcttag cagccactgg gagtttctca ccatgcaagt agggattagt 1320
actcttctt ttatgatgtt tattcccact caagccagat cgtcggtagt ccctttgcgc 1380
catgaagatt tcaggcgtag ttcgagtatc aagtcgcgct tccatgtcca gaaggtcctg 1440
gtgttcgtcc tgttcgtctg attcggatga gtcgtccagt tcgtctcctg ctaatgagga 1500
cggacaacgg aacatatgct caccgtcgca catgcattgc tgagccgcct ggtagtcgag 1560
gctgaaggct gcggtgttct cgaagtcttc ggtgcaacca tgctcttctg ttaatccaac 1620
aggacaggga ttaggtggat tacaataagc gggcagatta tccgttttta cttgctgatg 1680
attcattgca cttccatctg gtttgagcct ttgttggcct tcaccagcgc ctccacttac 1740
gtactgctga ccccatagag gactatgctg gagatattcc tgatctctga ggctaggatg 1800
taactggcct tcacggaata tggaatcata ttccgaatcc gattctagag ctttttgaga 1860
tcgtggaatt gcgggtactg ggaagtctac tcccagatct gagtattcgc caccactttc 1920
aatatcggct actcgatgca tccgtgacac cactgctctt atggcatcgt ctaattcttg 1980
cactgatgtt aaatatgcat gagtatttgt tgtccaaata gacactaaca gaattactga 2040
aattccgaaa gtcacgtgt aatcgcttgc cagtggagat cactgtgtac taactccag 2100
cgcaggcgag tgtgtttgag gctttggcac ggtgttagag tacaagtact cacctggtgc 2160
c

```

<210> 1927
 <211> 801
 <212> DNA

<213> Ctenocephalides felis

<400> 1927

atgacttttcg gaatttcagt aattctgtta gtgtctatatt ggacaacaaa tactcatgca 60
tatttaacat cagtgaaga attagacgat gccataagag cagtgggtgc acggatgcat 120
cgagtagccg atattgaaag tgggtggcgaa tactcagatc tgggagtaga cttcccagta 180
cccgcaattc cacgatctca aaaagctcta gaatcggatt cggaatatga ttccatattc 240
gatgaaggcc agttacatcc tagcctcaga gatcaggaat atctccagca tagtcctcta 300
tggggtcagc agtacgtaag tggaggcgct ggtgaaggcc aacaaaggct caaaccagat 360
ggaagtgaac tgaatcatca gcaagtaaaa acggataatc tgcccgccta ttgtaatcca 420
cctaattcct gtctgtttgg attaacagaa gagcatggtt gcaccgagaa cttcgagaac 480
accgcagcct tcagccgcga ctaccaggcg gctcagcaat gcatgtgcga cggtagcat 540
atgttcctgt gtccgtcctc attagacgga gacgaactgg acgactcatc cgaatcagac 600
gaacaggacg aacaccagga cttctggac atggaaggcg gacttgatac tcgaactgcg 660
cctgaaatct tcatggcgca aaggagtagc cgacgatctg gcttgagtgg gaataaacat 720
cataaaagaa agagtactaa tccctacttg catggtgaga aactcccagt ggctgctaag 780
aagggtatca acgttgtcta c 801

<210> 1928

<211> 801

<212> DNA

<213> Ctenocephalides felis

<400> 1928

gtagacaacg ttgataccct tcttagcagc cactgggagt ttctcaccat gcaagtaggg 60
attagtactc tttcttttat gatgtttatt cccactcaag ccagatcgtc ggtactccct 120
ttgcgccatg aagatttcag ggcagttcg agtatcaagt ccgccttcca tgtccagaag 180
gtcctggtgt tcgtcctgtt cgtctgattc ggatgagtcg tccagttcgt ctccgtctaa 240
tgaggacgga caacggaaca tatgtcacc gtcgcacatg cattgctgag ccgcctggta 300
gtcgcggctg aaggctgcgg tgttctcgaa gttctcgggtg caaccatgct cttctgttaa 360
tccaacagga cagggattag gtggattaca ataagcgggc agattatccg tttttacttg 420
ctgatgattc attgcattc catctggttt gagcctttgt tggccttcac cagcgcctcc 480
acttacgtac tgctgacccc atagaggact atgctggaga tattcctgat ctctgaggct 540
aggatgtaac tggccttcat cgaatatgga atcatattcc gaatccgatt ctagagcttt 600
ttgagatcgt ggaattgcgg gtactgggaa gtctactccc agatctgagt attcgccacc 660
actttcaata tcggctactc gatgcacccg tgacaccact gctcttatgg catcgtctaa 720
ttcttgact gatgttaa atgcatgagt atttgttgtc caaatagaca ctaacagaat 780
tactgaaatt ccgaaagtca t 801

<210> 1929

<211> 741

<212> DNA

<213> Ctenocephalides felis

<220>

<221> CDS

<222> (1)..(741)

<400> 1929

tat tta aca tca gtg caa gaa tta gac gat gcc ata aga gca gtg gtg	48
Tyr Leu Thr Ser Val Gln Glu Leu Asp Asp Ala Ile Arg Ala Val Val	
1 5 10 15	
tca cgg atg cat cga gta gcc gat att gaa agt ggt ggc gaa tac tca	96
Ser Arg Met His Arg Val Ala Asp Ile Glu Ser Gly Gly Glu Tyr Ser	
20 25 30	
gat ctg gga gta gac ttc cca gta ccc gca att cca cga tct caa aaa	144
Asp Leu Gly Val Asp Phe Pro Val Pro Ala Ile Pro Arg Ser Gln Lys	
35 40 45	
gct cta gaa tcg gat tcg gaa tat gat tcc ata ttc gat gaa ggc cag	192
Ala Leu Glu Ser Asp Ser Glu Tyr Asp Ser Ile Phe Asp Glu Gly Gln	
50 55 60	
tta cat cct agc ctc aga gat cag gaa tat ctc cag cat agt cct cta	240
Leu His Pro Ser Leu Arg Asp Gln Glu Tyr Leu Gln His Ser Pro Leu	
65 70 75 80	
tgg ggt cag cag tac gta agt gga ggc gct ggt gaa ggc caa caa agg	288
Trp Gly Gln Gln Tyr Val Ser Gly Gly Ala Gly Glu Gly Gln Gln Arg	
85 90 95	
ctc aaa cca gat gga agt gca atg aat cat cag caa gta aaa acg gat	336
Leu Lys Pro Asp Gly Ser Ala Met Asn His Gln Gln Val Lys Thr Asp	
100 105 110	
aat ctg ccc gct tat tgt aat cca cct aat ccc tgt cct gtt gga tta	384
Asn Leu Pro Ala Tyr Cys Asn Pro Pro Asn Pro Cys Pro Val Gly Leu	
115 120 125	
aca gaa gag cat ggt tgc acc gag aac ttc gag aac acc gca gcc ttc	432
Thr Glu Glu His Gly Cys Thr Glu Asn Phe Glu Asn Thr Ala Ala Phe	
130 135 140	
agc cgc gac tac cag gcg gct cag caa tgc atg tgc gac ggt gag cat	480
Ser Arg Asp Tyr Gln Ala Ala Gln Gln Cys Met Cys Asp Gly Glu His	
145 150 155 160	
atg ttc cgt tgt ccg tcc tca tta gac gga gac gaa ctg gac gac tca	528
Met Phe Arg Cys Pro Ser Ser Leu Asp Gly Asp Glu Leu Asp Asp Ser	
165 170 175	
tcc gaa tca gac gaa cag gac gaa cac cag gac ctt ctg gac atg gaa	576

Ser Glu Ser Asp Glu Gln Asp Glu His Gln Asp Leu Leu Asp Met Glu
180 185 190

ggc gga ctt gat act cga act gcg cct gaa atc ttc atg gcg caa agg 624
Gly Gly Leu Asp Thr Arg Thr Ala Pro Glu Ile Phe Met Ala Gln Arg
195 200 205

gag tac cga cga tct ggc ttg agt ggg aat aaa cat cat aaa aga aag 672
Glu Tyr Arg Arg Ser Gly Leu Ser Gly Asn Lys His His Lys Arg Lys
210 215 220

agt act aat ccc tac ttg cat ggt gag aaa ctc cca gtg gct gct aag 720
Ser Thr Asn Pro Tyr Leu His Gly Glu Lys Leu Pro Val Ala Ala Lys
225 230 235 240

aag ggt atc aac gtt gtc tac 741
Lys Gly Ile Asn Val Val Tyr
245

<210> 1930

<211> 247

<212> PRT

<213> Ctenocephalides felis

<400> 1930

Tyr Leu Thr Ser Val Gln Glu Leu Asp Asp Ala Ile Arg Ala Val Val
1 5 10 15

Ser Arg Met His Arg Val Ala Asp Ile Glu Ser Gly Gly Glu Tyr Ser
20 25 30

Asp Leu Gly Val Asp Phe Pro Val Pro Ala Ile Pro Arg Ser Gln Lys
35 40 45

Ala Leu Glu Ser Asp Ser Glu Tyr Asp Ser Ile Phe Asp Glu Gly Gln
50 55 60

Leu His Pro Ser Leu Arg Asp Gln Glu Tyr Leu Gln His Ser Pro Leu
65 70 75 80

Trp Gly Gln Gln Tyr Val Ser Gly Gly Ala Gly Glu Gly Gln Gln Arg
85 90 95

Leu Lys Pro Asp Gly Ser Ala Met Asn His Gln Gln Val Lys Thr Asp
100 105 110

Asn Leu Pro Ala Tyr Cys Asn Pro Pro Asn Pro Cys Pro Val Gly Leu

<400> 1935
actcactata gggctcgagc ggc 23

<210> 1936
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1936
caatttttaaa cgcattccacg accg 24

<210> 1937
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1937
ccgctcgagc gacccatttc acgacttatt tgaatcg 37

<210> 1938
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1938
ggaattctaa aatgcacaac aaaatcctgg tcctgg 36

<210> 1939
<211> 40
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1939

gactagtaaa atgggcgtta aaaatatata tttatactgc

40

<210> 1940

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1940

ccgctcgagg tactgcacgt actaacgtca tc

32

<210> 1941

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1941

gtctggaagc tcaggaagag g

21

<210> 1942

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1942

gtaatatgcg tgacaatcgt gtgg

24

<210> 1943
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1943
cggtgcaagt tatagaacct tccg 24

<210> 1944
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1944
cgggatcccg aatatgctga cgtagatgtg tg 32

<210> 1945
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1945
ggaattctgt ttatttctgg ttgtaacat tc 32

<210> 1946
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1946
gatatccact ttgatcagcg cac 23

<210> 1947
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1947
ggtactactc ctggtgcggg c 21

<210> 1948
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1948
ccgtcgacat taaactcacc atc 23

<210> 1949
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1949
cgatcatgcg tctagcattg gc 22

<210> 1950
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1950

cccgccccag ttctaggttg tcc

23

<210> 1951

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1951

cacacccaac ctgaccaggc

20

<210> 1952

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1952

atggatccgg caaaatatac caaagaagaa g

31

<210> 1953

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1953

atgaattcctt atattggtat cgcgtccatt

30

<210> 1954

<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1954
agtcgcatag tgcacttctg aatg 24

<210> 1955
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1955
ctgacatctg tttccacagc tc 22

<210> 1956
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1956
aatagtgatg ttgtaagagt tagg 24

<210> 1957
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1957

gtttaatatt gcatgtttat tcattaaaa

29

<210> 1958

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1958

gcgccatgaa gatttcaggc g

21

<210> 1959

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 1959

aagtgcaatg aatcatcagc aag

23